LAXMI N. BHUYAN
{http://www.cs.ucr.edu/~http://www.cs.ucr.edu/~bhuyan/**}**

Education
Ph.D., Computer Engineering, Wayne State University, Detroit, Michigan, 1982;
M.Sc., Engineering (Electrical), Sambalpur University, India, 1978;
B.Sc., Engineering (Hons) (Electrical), Sambalpur University, India, 1972.

Recent Professional Experience
Jan. 01-Present: Professor of Comp. Science and Engineering, Univ. of California, Riverside;
Sept. 98-August 00: Program Director, Computer Systems Architecture Program, NSF;
Sept. 91-Dec. 00: Professor of Computer Science, Texas A&M University;
August 98: Consultant, HP Labs, Palo Alto, CA;
July-August 97: Consultant/Visiting Professor, Intel Corporation.

Related Research Publications
Most papers available at *http://www.cs.ucr.edu/~bhuyan/#publications*.
[1] X. Zhang, L. Bhuyan and W. Feng, "Anatomy of UDP and M-VIA for Cluster Communication" *Journal of Parallel and Distributed Computing (JPDC),* Special issue on Design and Performance of Networks for Super-, Cluster-, and Grid-Computing, Vol. 65, Issue 10, October 2005, pp. 1290-1298.
[2] J. Guo and L. Bhuyan, "Load Balancing in a Cluster-based Web Server for Multimedia Applications", *IEEE Transactions on Parallel and Distributed Systems (TPDS),* In press.
[3] L. Zhao, R. Iyer, S. Makineni and L. Bhuyan, "Anatomy and Performance of SSL Processing*", IEEE International Symposium on Performance Analysis of Systems and Software (ISPASS)*, Austin, TX, March 2005
[4] Z. Xu and L. Bhuyan, "QoS-Aware Object Replica Placement in CDN" *IEEE Globecom 2005 Advances for Networks & Internet Symposium*, November 2005.
[5] H. Xie, L. Zhao and L. Bhuyan, "Architectural Analysis and Instruction Set Optimization for Network Protocol Processors", *IEEE ISSS+CODES*, October 2003.

Other Research Publications
[6] J. Guo, J. Yao and L. Bhuyan, "An Efficient Packet Scheduling Algorithm in Network Processors", *IEEE INFOCOM*, Miami, March 2005.
[7] Y. Luo, J. Yang, L. Bhuyan and L. Zhao, "NePSim: A Network Processor Simulator with Power Evaluation Framework," *IEEE Micro, Special Issue on Network Processors*, Sept/Oct, 2004.
[8] Y. Luo, L. Bhuyan and X. Chen, "Shared Memory Multiprocessor Architectures for Software IP Routers", *IEEE Transactions on Parallel and Distributed Systems*, V-14, Dec 2003, pp. 1240-1249.
[9] X. Zhang and L.N. Bhuyan, "Deficit Round Robin Scheduling for Input-Queued Switches", *IEEE Journal on Selected Areas in Communications*, Special Issue on "High Performance Optical/Electronic Switches/Routers for High Speed Internet", Vol. 21, 4, May 2003, pp. 584-594.
[10] N. Ni and L.N. Bhuyan, **"**Fair Scheduling and Buffer Management in Internet Routers", Proc. *IEEE INFOCOM'02*, New York, June 2002, Expanded version in *IEEE Transactions on Computers, Special issue on* on *QoS Issues in Internet Web Services*, Vol. 51, No. 6, June 2002

Selected Professional Honors

- ***ISI Highly Cited Researcher****, 2002;*
- *Fellow of the World Innovation Foundation (WIF), 2004;*
- *Fellow of the AAAS, 2002;*
- ***Fellow of the ACM***, 2000;
- ***Fellow of the IEEE***, 1998;
- Senior Fellow, Texas Engineering Experiment Station, 1996;
- Outstanding Contribution Award, IEEE Computer Society, 1996;
- Halliburton Professorship Award, TAMU College of Engineering, 1991

Selected Professional Activities

- **Editor-in-Chief**, IEEE Transactions on Parallel and Distributed Systems, January 2006-
- Vice Chair, IEEE Computer Society Publications Board, 2003;
- General Co-Chair, HPCA-9, Anaheim, CA, February 2003;
- Editor, IEEE Transactions on Computers, January 2002-present;
- Subject Area Editor, Performance Evaluation, JPDC, 1995-present;
- Editor, Parallel Computing, North Holland, 1992-present;
- Member-at-Large, IEEE CS Publications Board, 2000-2001;
- Editor, IEEE Transactions on Parallel and Distributed Systems (TPDS), 1998
- Chairman, IEEE CS Technical Committee on Computer Architecture, 1995 - 1998;
- Area Editor, Systems Architecture, IEEE Computer Magazine, 1991- 1997;
- Program Co-Chairman, IEEE SPDP, San Antonio, October 1996;
- Founding Program Committee Chairman, HPCA-1, Raleigh, Jan. 1995;

Ph.D Students Completed (With current employment)

Li Zhao, August 2005, Intel Corporation; *Yan Luo*, July 2005, University of Massachusetts, Lowell; *Xiao Zhang*, August 2005, Qualcomm; *H. Wang***,** December 2001, IBM Corporation; *N. Ni*, December 2000, IBM Corporation; *M. Pirvu*, December 2000, Compaq Corporation*; R. Iyer*, August 1999, Intel Corporation; *A. Kumar*, May 1996, Intel Corporation; *P. Mannava*, August 1995, Intel Corporation; *C. Feng*, August 1995, Motorola Inc.; *Y. Chang*, May 1995, Taiwan; *J. Ding*, May 1994, Intel Corporation; *A. Nanda*, May 1993, IBM TJ Watson Research Center; *C.H. Chen*, May 1993, University of Tuskegee; *H. Jiang*, August 1991, University of Nebraska-Lincoln; *D. Ghosal*, August 1988, University of California at Davis; *Q. Yang*, August 1988, University of Rhode Island; *C.R. Das*, August 1986, Pennsylvania State University.

Post-doctoral/Visiting Researchers

Rabi Mahapatra (Texas A&M University), 1995-1996, Yemkuan Chang (University of California, Riverside), 2001, Zhiyong Xu (University of California, Riverside), 2003-2004, In-Bum Jung (University of California, Riverside), 2004-2005

Other Collaborators

Dharma Agrawal – University of Cincinnati (Ph.D. Advisor), Raj Kumar – HP Laboratories, Sujoy Basu – HP Laboratories, Ravi Iyer – Intel Corporation, Krishna Kant – Intel Corporation, William Mangione Smith – University of California, Los Angeles, Prasant Mohapatra – University of California, Davis.

Marek Chrobak
Professor

Degrees

Ph.D., Mathematics and Computer Science, Polish Academy of Sciences, Inst.Mathematics, 1984
M.S., Mathematics and Computer Science, Warsaw University, Poland, 1981

University of California, Riverside, Service

Assistant Professor, V, 7/1/1987
Associate Professor, II, 7/1/1991
Associate Professor, III, 7/1/1993
Professor, I, 7/1/1996
Professor, II, 7/1/1999
Professor, III, 7/1/2002
Professor, IV, 7/1/2005

Other Professional Experience

1987. Columbia University. Visiting Assistant Professor.

1985-86. Warsaw University. Assistant Professor.

Consulting and Patents

None.

Registrations

N/A

Publications

1. M.Chrobak, C.Durr, Reconstructing polyatomic structures from discrete X-Rays: NP-completeness proof for three atoms, Theoretical Computer Science 259 (2001) 81-98.
2. E.Anderson, M.Chrobak, J.Noga, J.Sgall, G.Woeginger, Solution of a problem in DNA computing, Theoretical Computer Science 287 (2002) 387--391.
3. M.Chrobak, E.Koutsoupias, J.Noga, More on randomized algorithms for caching. Theoretical Computer Science 290 (2003) 1997--2008.
4. M.Chrobak, L.Gasieniec, W.Rytter, Fast algorithms for broadcasting and gossiping in radio networks. Journal of Algorithms 46 (2003) 1-20.
5. L.Valinsky, G.Della Vedova, A.J.Scupham, S.Alvey, A.Figueroa, B.Yin, J.Hartin, M.Chrobak, D.E.Crowley, T.Jiang, J.Borneman, Analysis of microbial community composition using oligonucleotide fingerprinting of ribosomal RNA genes, Applied and Environmental Microbiology 68 (2002) 3243-3250.
6. Y.Bartal, M.Chrobak, J.Noga, P.Raghavan, More on random walks, electrical networks and the Harmonic k-server algorithm, Information Processing Letters 84 (2002) 271-276.

7. M.Chrobak, L.Epstein, J.Noga, J.Sgall, R.van Stee, T.Tichy, N.Vakhania, Preemptive scheduling in overloaded systems, Journal of Computer and System Sciences 67 (2003) 183-197.
8. M.Chrobak, L.Gasieniec, W.Rytter, A randomized algorithm for gossiping in radio networks, Networks 43 (2004) 119--224.
9. P.Baptiste, M.Chrobak, C.Durr, W.Jawor, N.Vakhania, Preemptive scheduling of equal-length jobs to maximize weighted throughput, Operations Research Letters 32 (2004) 258-264.
10. M.Chrobak, C.Durr, W.Jawor, L.Kowalik, M.Kurowski, On scheduling equal length jobs to maximize throughput, Journal of Scheduling 9,1 (2006) 71-73.
11. M.Chrobak, P.Kolman, J.Sgall, A greedy algorithm for the minimum common string partition problem, to appear in ACM Transactions on Algorithms.
12. F.Y.L.Chin, M.Chrobak, S.P.Y.Fung, W.Jawor, J.Sgall, T.Tichy, Online competitive algorithms for maximizing weighted throughput of unit jobs, to appear in Journal of Discrete Algorithms.
14. M.Chrobak, W.Jawor, J.Sgall, T.Tichy, Online scheduling of equal length jobs: randomization and restarts help. To appear in SIAM Journal on Computing.
15. M.Chrobak, L.Gasieniec, D.Kowalski, The wake-up problem in multi-hop radio networks. To appear in SIAM Journal on Computing.
16. V.Krishnamoorthy, M.Faloutsos, M.Chrobak, A.Percus, J-H.Cui. Sampling large internet topologies. Proc. Networking'05, 4th International IFIP-TC6 Networking Conference, Lecture Notes in Computer Science 3462, Springer 2005, 328-341.
17. Q.Fu, J.Borneman, J.Ye, M.Chrobak, Improved probe selection for DNA microarrays using nonparametric kernel density estimation. Proc. of 27th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS), 2005.
18. W.Jawor, M.Chrobak, C.Durr. Competitive analysis of scheduling algorithms for aggregated links, Proc. of LATIN 2006, Lecture Notes in Computer Science 3887, pp. 617-628, 2006.
19. M.Chrobak, C.Kenyon, J.Noga, N.Young, Online medians via online bidding. Proc. of LATIN 2006, Lecture Notes in Computer Science 3887, pp. 17-628, 2006.

Professional Societies
ACM SIGACT

Honors and awards
None.

Service

2001-Present, Undergraduate Advisor for Comp. Science, Inf. Systems, Comp. Engineering
2001-2003, College of Engineering Executive Committee, Chair
2005-2006, Freshmen Experience Committee

2004-Present, Editor, SIGACT News Column on Online Algorithms
2005-2006, Program Committee Member, AAIM'06, Hong Kong, June 2006.
2006-2007, Program Committee Member, AAIM'07, Portland, June 2007.

Gianfranco Ciardo
Professor

Degrees

Ph.D., Computer Science, Duke University, Durham, NC, 1989
Laurea, Computer Science, Universita'di Torino, Italy, 1982

University of California, Riverside

Professor, II, 7/1/2003

Other Professional Experience

1992-present. William and Mary, Department of Computer Science, Williamsburg, VA. Adjunct Professor (January 2004-present). Professor (2002-2004). Associate Professor (1997-2002). Assistant Professor (1992-97).

Spring 2000. HP Labs, Palo Alto, CA. Sabbatical visiting researcher.

September 1988-July 1992. Software Productivity Consortium, Herndon, VA. Member of Technical Staff.

Visiting Professor, Berlin Univ. of Technology, Germany (Fall 1992); Univ. of Torino, Italy (Fall 1999). **Lecturer**, First Euro Summer School on Trends in Computer Science: Formal Methods and Performance Analysis, July 2000, Nijmegen, The Netherlands; Bertinoro International Spring School, Mar. 2005, Bertinoro, Italy.

Consulting and Patents

United States Patent 6,546,473 "Method for cache replacement of web documents", April 8, 2003. Inventors: Ludmila Cherkasova and Gianfranco Ciardo. Assignee: Hewlett-Packard Company.

Registrations

None

Publications

Over 90 refereed publications in top journals and conferences. Recent publications include:
* G. Ciardo, R. Jones □, A. Miner, R. Siminiceanu□. Logical and stochastic modeling with SMART. Perf. Eval., 63:578–608, 2006.
* G. Ciardo, R. Marmorstein , R. Siminiceanu□. The saturation algorithm for symbolic state space exploration. Software Tools for Technology Transfer, 8(1):4–25, February 2006.
* Q. Zhang □, A. Riska□, W. Sun□, E. Smirni, G. Ciardo. Workload-aware load balancing for clustered web servers. IEEE Trans. Par. and Distr. Syst., 16(3):219–233, March 2005.

* G. Ciardo, A. Riska □, E. Smirni. Etaqa-MG1: An efficient technique for the analysis of M/G/1-type processes by aggregation. Perf. Eval., 57(3):235–260, July 2004.
* A. Riska □, E. Smirni, G. Ciardo. Exact analysis of a class of GI/G/1-type performability models. IEEE Trans. Rel., 53(2):238–249, June 2004.
□

Professional Societies

Member of ACM SIGMETRICS. Senior member of IEEE Computer Society.

Professional publishing and conferences.

Associate Editor, IEEE Transactions on Software Engineering Jan. 2001-Jan. 2005. **Member of the Steering Committee**, International Workshop on Performability Modeling of Computer and Communication. **Keynote Speaker**, Joint European Performance Engineering Workshop / Int. Workshop on Web Services and Formal Methods, Versailles, France, Sept. 2005; Int. Conf. on Application and Theory of Petri Nets, Bologna, Italy, June 2004; Petri Net and Performance Models, Aachen, Germany, Sept. 2001. **General Chair**, QEST 2006, Riverside, CA; ICATPN, June 1999, Williamsburg, VA. **Program Co-Chair**, IEEE Pacific Rim International Symposium on Dependable Computing, Riverside, CA; Int. Conf. on Application and Theory of Petri Nets, Miami, FL, June 2005; Petri Net and Performance Models, Urbana-Champaign, IL, Sept. 2003 and Durham, NC, Oct. 1995; IEEE Intl. Computer Performance and Dependability Symposium, Chicago, IL, 1998.

Honors and awards

W&M, CS Dept. Nominee for the Margaret Hamilton Professorship, Spring 2003.
IBM Graduate Fellowship, 1985–86 and 1986–87.

Service

At UCR: Fall 2005–present Member, Research Computing Advisory Group; November 2005 Session Chair, Southern California Conference on Undergraduate Research (SCCUR); 2004–present Associate Chair; 2004–present Webmaster; 2004–05 Member, Hiring Committee. **At W&M**: 2002-03 Member, Graduate Curriculum Committee; 2001–03 Chair, Graduate Admission Committee; 2001–03 Director of Graduate Studies; 2001–02 Chair, Faculty Search and Chair Search Committees; 2000–01 Chair, Personnel Committee; 2000–02 Member, Systems Committee; 1998–2003 Member, Personnel Committee; 1996–99 Webmaster; 1994–99 Faculty member responsible for Communications and Publicity; 1995, 1997, 2001 Member, Faculty Hiring Committee; 1995–96 1998–99 Member, Curriculum Committee; 1993–95 Member, Examination Committee; 2002 Member, Internal Review Team, Biology Department; 1998-99 Member, Search Committee for the Director of Conference Services; 1996-98 Member, Ad-hoc Intellectual Property Policy Committee.

Professional Development
Participation in several conferences per year.

Michalis Faloustsos
Associate Professor

Degrees
Ph.D., Computer Science, University of Toronto, Canada, 1999
M.Sc., Computer Science, University of Toronto, Canada, 1995
B.Sc., Electrical & Computer Engineering, National Technical University of Athens, Greece, 1993

University of California, Riverside, Service
Assistant Professor, II, 4/26/1999
Assistant Professor, III, 7/1/2000
Assistant Professor, IV, 7/1/2002
Assistant Professor, V, 7/1/2004
Associate Professor, II, 7/1/2005

Other Professional Experience
None

Consulting and Patents
None

Publications

" DART: Dynamic Address RouTing for Scalable Ad Hoc and Mesh Networks J. Eriksson, M. Faloutsos, and S. V. Krishnamurthy ACM Transactions on Networking, 2006.

" AQoSM: Scalable QoS Multicast Provisioning in Diff-Serv Networks" J. Cui, L. Lao, M. Faloutsos, M. Gerla, Computer Networks by Elsevier, Vol 50/1 pp 80-105, 2005.

"Application versus Network Layer Multicasting in Ad Hoc Networks: The ALMA Routing Protocol" M. Ge, S. V. Krishnamurthy, M. Faloutsos, Ad Hoc Networks Journal (by Elsevier).

"A User-Friendly Self-Similarity Analysis Tool", Thomas Karagiannis, Michalis Faloutsos, Mart Molle, Special Section on Tools and Technologies for Networking Research and Education, ACM SIGCOMM Computer Communication Review, vol. 33, no. 3, pp. 81-93, 2003.

“Power-Laws and the AS-level Internet Topology”, G. Siganos, M. Faloutsos, P. Faloutsos, C. Faloutsos IEEE/ACM Transactions on Networking, volume 11, no. 4, pp. 514-524, 2003.

"The Effect of Asymmetry on the On-line Multicast Routing Problem"` M. Faloutsos, R. Pankaj, K. Sevcik, International Journal on Foundations in Computer Science Vol. 13, No. 6, 889-910, 2002.

``QoS-Aware Multicast Routing for the Internet: The Design and Evaluation of QoSMIC" S. Yan, M. Faloutsos and A. Banerjea IEEE/ACM Transactions on Networking, Vol. 10, Num. 1, pp 54-66, Feb 2002

Professional Societies

Member of the Engineering Chamber of Greece
Member of IEEE
Member of ACM

Honors and awards

* Co-authored a top-20 most cited paper of 1999: ``On powerlaw relationships of the Internet topology", with Petros Faloutsos and Christos Faloutsos (Digital Library: www.citeseer.nj.nec.com). The work referenced by popular magazine and books: Scientific American,vol. 288, no. 5, 2003, and book: ``Linked: by The New Science of Networks", by Albert-Laszlo Barabasi

* Co-authored a paper, which received publicity in the popular electronic and printed press. The paper is titled `Is P2P dying or just hiding?". The article was the main focus of an article in the Wired magazine website. The Wired magazine is a popular computer magazine with a broad audience. The paper was referenced in the popular PC Magazine,in its December 2004 issue.

The paper was also featured and cited in many other electronic news-cites such as:
-. Congressional Internet Caucus and its Advisory Committee: which consists of Congress persons, http://www.netcaucus.org.
-. Many popular sites: USA Today, ACM Tech News - Oct 29 electronic bulletin, Slashdot, a major site for software and systems news.

NSF Career Award, July 2000. Prestigious award for new faculty.

UCR College of Engineering Teaching Award 2003-2004

Teaching Assistant Award, Computer Science Department, University of Toronto, Spring 96, second best among teaching assistants.

Service
Chairperson of the Research Committee, Member of the Executive Committee of the College,

Professional Development

TPC member in many prestigious conferences: ACM SIGCOMM'02, IEEE/ACM INFOCOM'04, ICNP'04
Editor in the ACM Computer Communication Review, since 2005

Ann Gordon-Ross
Lecturer

Degrees

Ph.D., Computer Science, University of California, Riverside (in progress).
B.S., Computer Science, University of California, Riverside, 2000.

University of California, Riverside, Service

Lecturer, Department of Computer Science and Engineering, 2004-present.
Head Grader, Department of Computer Science and Engineering, 1997-2000.
Teaching Assistant, Department of Computer Science and Engineering, 2000-2003.
Undergraduate/Graduate Research Assistant, 1999-present.

Publications

- *Book Chapter*

1. Tuning caches to applications for low-energy embedded systems. A. Gordon-Ross, C. Zhang, F. Vahid. N. Dutt. *Chapter 6 in Ultra Low-Power Electronics and Design - Kluwer Academic Pub, June 2004*.

- *Technical Reports*

1. Fast Configurable-Cache Tuning with a Unified Second-Level Cache. A. Gordon-Ross, F. Vahid, N. Dutt. *Technical Report UCR-CS-2005-05002, May 2005*
2. Automatic Tuning of Two-Level Caches to Embedded Applications. A. Gordon-Ross, F. Vahid, N. Dutt. *Technical Report UCR-CSE-03-02, September 2003*

- *Conference Publications*

1. Fast Configurable-Cache Tuning with a Unified Second-Level Cache. A. Gordon-Ross, F. Vahid, N. Dutt. *International Symposium on Low Power Electronics and Design, August 2005*.
2. A First Look at the Interplay of Code Reordering and Configurable Caches. A. Gordon-Ross, F. Vahid, N. Dutt. *Great Lakes Symposium on VLSI (GLSVLSI), April 2005*.
3. Automatic Tuning of Two-Level Caches to Embedded Applications. A. Gordon-Ross, F. Vahid, N. Dutt. *Design, Automation and Test in Europe, February 2004*
4. Frequent Loop Detection Using Non-Intrusive On-Chip Hardware. A. Gordon-Ross, F. Vahid. *International Conference on Compilers, Architectures and Synthesis of Embedded Systems, October 2003*
5. Dynamic Loop Caching Meets Preloaded Loop Caching -- A Hybrid Approach. A. Gordon-Ross, F. Vahid. *International Conference on Computer Design, September 2002*
6. A Self-Optimizing Embedded Microprocessor using a Loop Table for Low Power. F. Vahid, A. Gordon-Ross. *International Symposium on Low Power Electronics and Design, August 2001*

- *Journal Publications*

1. Frequent Loop Detection Using Non-Intrusive On-Chip Hardware. A. Gordon-Ross, F. Vahid. *IEEE Transactions on Computing – Best of the 2003 MICRO and CASES conferences special issue. Special Issue-Embedded Systems Microarchitecture, and Compilation Techniques, in Memory of B. Ramakrishna (Bob) Rau, Oct. 2005, Vol. 54, Issue 10, pp 1203-1215.*
2. Tiny Instruction Caches For Low Power Embedded Systems. A. Gordon-Ross, S. Cotterell, F. Vahid. *ACM Transactions on Embedded Computing Systems, Nov 2003.*
3. Exploiting Fixed Programs in Embedded Systems: A Loop Cache Example. A. Gordon-Ross, S. Cotterell, F. Vahid*. IEEE Computer Architecture Letters, Vol I, January 2002*

Professional Societies

- Member, IEEE
- Member, ACM

Honors and awards

- Outstanding Student Commencement Award, Marlan and Rosemary Bourns College of Engineering – June 2000. Selected as the outstanding female student Honors in engineering in the graduating class of 2000.
- Graduated Magna Cum Laude – June 2000.
- GAANN (Graduate Assistance in Areas of National Need) Fellowship recipient – September 2000 through August 2003. Fellowship includes full payment of fees and tuition plus monthly stipend and funding for travel and educational expenses.
- Chancellor's Distinguished Fellowship recipient – September 2003 through June 2005. Fellowship includes full payment of fees and tuition plus monthly stipend.
- Second Place Poster Award – University of California, Riverside, Industry Day Graduate Student Poster, November 2002.
- Travel Grant Recipient from SIGDA - CASES Conference, 2003
- Travel Grant Recipient – GLSVLSI Conference, 2005

Service

- Reviewer, Embedded Computer Systems: Architecture, Modeling, and Simulation Activities (SAMOS), 2006.
- Reviewer, IEEE/ACM International Conference on Compilers, Architecture, and - Synthesis for Embedded Systems (CASES), 2005.
- Reviewer, ACM International Conference on Computing Frontiers, 2005.
- Reviewer, IEEE/ACM International Conference on Compilers, Architecture, and Synthesis for Embedded Systems (CASES), 2003.
- Reviewer, ACM Conference on Languages, Compilers, and Tools for Embedded Systems (LCTES), 2003.

Dimitrios Gunopulos
Professor

Degrees
Ph.D., Computer Science, Princeton University, 1995
M.A., Computer Science, Princeton University, 1992
Diploma, Computer Science, University of Patras, Greece, 1990

University of California, Riverside, Service
Assistant Professor, III, 11/23/1998
Assistant Professor, IV, 7/1/2000
Associate Professor, II, 7/1/2002
Associate Professor, III, 7/1/2004
Professor, I, 7/1/2005

Other Professional Experience
10/1996 - 11/1998: Research Associate, IBM Almaden Research Center, San Jose, CA.
9/1996 - 10/1996: Visiting Researcher, Computer Science, University of Helsinki, Finland.
9/1995 - 8/1996: Postdoctoral Fellow, Max-Planck-Institut fuer Informatik, Germany.

Patents
1. "System and Method for Organizing Repositories of Semi—Structured Documents Such as Email". R. Agrawal, R. Bayardo, D. Gunopulos, H. Ho, S. Sarawagi, J. Shafer, R. Srikant, U.S. Patent US6592627 (7/15/2003).
2. "System and method for constraint-based rule mining in large, dense data-sets". R. Bayardo, R. Agrawal, D. Gunopulos. U.S. Patent US6278997 (8/21/2001).
3. "Prospective Customer Selection Using Customer and Market Reference Data". P. Chou, E. Grossman, D. Gunopulos, P. Kamesam. U.S. Patent US06061658 (5/9/2000).
4. "Automatic Subspace Clustering of High Dimensional Data for Data Mining Applications". R. Agrawal, J. Gehrke, D. Gunopulos, P. Raghavan. U.S. Patent US6003029 (12/14/1999).
5. Mining Process Models from Workflow Logs". R. Agrawal, D. Gunopulos, F. Leymann, D. Roller. U.S. Patent US6038538 (3/14/2000).

Ten Recent Publications
1. "Automatic Subspace Clustering of High Dimensional Data", R. Agrawal, J. Gehrke, D. Gunopulos, P. Raghavan, Accepted, Data Mining and Knowledge Discovery Journal.
2. "MicroHash: An Efficient Index Structure for Flash-Based Sensor Devices", . Zeinalipour-Yazti, S. Lin, V. Kalogeraki, D. Gunopulos and W. Najjar, 4th USENIX Conf. FAST 2005.
3. "Elastic Translation Invariant Matching of Trajectories." M. Vlachos, G. Kollios, D. Gunopulos. Machine Learning 58(2-3): 301-334 (2005)
4. "Approximating Aggregations in Peer-to-Peer Databases", B. Arai, G. Das, D. Gunopulos, V. Kalogeraki 22nd Int. Conf. on Data Engineering (ICDE'06).
5. "Resilient and Energy Efficient Tracking in Sensor Networks", M. Halkidi, D. Papadopoulos, V. Kalogeraki, D. Gunopulos. Accepted, Int. Journal of Wireless and Mobile Computing.
6. "Selectivity estimators for multidimensional range queries over real attributes." D. Gunopulos, G. Kollios, V. J. Tsotras, C. Domeniconi. VLDB J. 14(2): 137-154 (2005)

7. “Identifying Similarities, Periodicities and Bursts for Online Search Queries.” M. Vlachos, C. Meek, Z. Vagena, D. Gunopulos. ACM SIGMOD Conference 2004: 131-142.
8. “Indexing Large Human-Motion Databases.” T. Palpanas, M. Cardle, D. Gunopulos, E. J. Keogh, V. B. Zordan. Proc. VLDB Conf 2004: 780-791.
9. “Rotation Invariant Index Methods for Trajectories.” M. Vlachos, D. Gunopulos, G. Das. In Proc. ACM SIGKDD 2004: 707-712.
10. “Exploiting Locality for Scalable Information Retrieval in Peer-to-Peer Systems.” D. Zeinalipour-Yiazti, V. Kalogeraki, D. Gunopulos. Information Systems J. 30(4): 277-298.

Professional Service

Program Co-Chair, ACM SIGKDD 2006.
Associate Editor, IEEE Transactions on Knowledge and Data Engineering (TKDE).
Program Co-Chair in the 15th Int. Conf. on Scientific and Statistical Database Management ‘03.
Program Vice-Chair in the 2005 IEEE International Conference on Data Mining (ICDM).
Program Vice-Chair in the 2004 IEEE International Conference on Data Engineering (ICDE).
Program Co-Chair in the 2000 ACM SIGMOD Workshop on Research Issues in Data Mining and Knowledge Discovery (DMKD), held in cooperation with SIGMOD’2000, Dallas.
Program Committee member in: ICML 02, SIGKDD 02, PODS 02, SDM 02, SIGMOD 01, ICML 01, SIGKDD 01, SDM 01, ICDE 00, DMKD 99, KDD 98, PODS 05, ICDE 04, SIGKDD 05, ICDE 05, PODS 05, PKDD 2006, CIKM 2006, SSTD 2007, SIGMOD 2007.
Associate Editor in IEEE Transactions in Data and Knowledge Engineering, in ACM Transactions of Knowledge Discovery from Data, member of the Editorial Board in Elsevier Information Systems Journal.
Panelist in IEEE ICDE 2006, MDM 2006, NetDB 2005, MIS 2000, DMKD 2000.

Honors and awards

Gold Medal, 29th Greek Math Olympiad, 1985 Athens, Greece
Bronze Medal, 2nd Balkan Math Olympiad, 1985 Sofia, Bulgaria
Dean's List, 1985, 1987, 1990 University of Patras, Computer Science Department
NSF Career Award, July 2000

Professional Development

Professor Gunopulos’ research is in the areas of Data Mining and Knowledge Discovery in Databases, Databases, and Algorithms. He has co-authored over a hundred papers in journals and conferences, one book, and five U.S. patents. His research has been supported by NSF (including an NSF CAREER award and an NSF ITR award), the DoD, the Institute of Museum and Library Services, the Tobacco Related Disease Research Program, and AT&T.

Ph.D. Students: Carlotta Domeniconi (Ph.D. 2002, currently Assistant Prof. at George Mason University). Michail Vlachos (Ph.D. 2004, currently Research Staff Member in IBM T.J. Watson Research Center), Dimitrios Papadopoulos (Ph. D. 2005), Dimitrios Zeinalipour-Yiazti (Ph.D. 2005, currently Lecturer, University of Cyprus), Sharmila Subramaniam (Ph.D. 2006, Google), B. Arai, S. Lin (current Ph.D. students).

Postdoctoral Fellows: Themis Palpanas (Ph.D. U. of Toronto, 2003, currently at IBM T.J.Watson), Maria Halkidi (Ph.D. Athens U. of Economics and Business, 2004, currently at Athens U. of Economics and Business).

Harry Hsieh
Assistant Professor

Degrees

Ph.D., Electrical Engineering and Computer Science, University of California, Berkeley, 2000
M.S. Electrical Engineering, Stanford University, 1991
B.S., Electrical Engineering, University of Wisconsin, Madison, WI, 1988

University of California, Riverside, Service

Assistant Professor, II, 7/1/2001
Assistant Professor, III, 7/1/2003
Assistant Professor, IV, 7/1/2005

Other Professional Experience

Post-doc researcher, Cadence Berkeley Laboratories, 6/1/2000 to 6/1 2001
Research assistant, University of California – Berkeley, 9/1/1993 to 6/1/2000
Member of Technical Staff, Hewlett Packard, 6/1/1991 to 9/1/1993

Publications

Xi Chen, Abhijit Davare, Harry Hsieh, Alberto Sangiovanni-Vincentelli, Yosinori Watanabe. Simulation Based Deadlock Analysis for System Level Designs. In Proceedings of the Design Automation Conference. June, 2005.

Jia Yu, Wei Wu, Xi, Chen, Harry Hsieh, Jun Yang, Felice Balarin. Assertion Based Automatic Design exploration of DVS in Network Processor Architectures. In Proceedings of Design Automation and Test in Europe, March, 2005.

Ryan Mannion, Harry Hsieh, Susan Cotterell, Frank Vahid. System Synthesis for Networks of Programmable Blocks. In Proceedings of Design Automation and Test in Europe, March, 2005.

Xi Chen, Yan Luo, Harry Hsieh, Laxmi Bhuyan, Felice Balarin. Assertion Based Verification and Analysis of Network Processor Architectures. In Journal of Design Automation for Embedded Systems. September, 2004.

Xi Chen, Harry Hsieh, Felice Balarin, Yosinori Watanabe. Logic of Constraints: A Quantitative Performance and Functional Constraint Formalism. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, August, 2004.

Susan Cotterell, Frank Vahid, Walid Najjar, Harry Hsieh. First Results with eBlocks: Embedded Systems Building Blocks. First International Conference on Hardware/Software Codesign & System Synthesis, October, 2003.

Xi Chen, Harry Hsieh, Felice Balarin, Yosinori Watanabe. Automatic Trace Analysis for Logic of Constraints. In Proceedings of the Design Automation Conference. June, 2003.

Xi Chen, Harry Hsieh, Felice Balarin, Yosinori Watanabe. Formal Verification for Embedded

System Designs. In Journal of Design Automation for Embedded Systems. June, 2003.

Xi Chen. Harry Hsieh, Felice Balarin, Yosinori Watanabe. Simulation Trace Verificaiton for Quantitative Constraints. In Embedded Software for SoC, Kluwer Academic Publisher, June 2003.

Felice Balarin, Harry Hsieh, Luciano Lavagno, Claudio Passerone, Alberto Sangiovanni-Vincentelli, Yosinori Watanabe. Metropolis: An Integrated Electronic System Design Environment. IEEE Computer. April, 2003.

Harry Hsieh, Felice Balarin, Luciano Lavagno, Alberto Sangiovanni-Vincentelli. Synchronous Approach to the Functional Equivalence of Embedded System Implementations. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, August 2001. .

Professional Societies

Member of IEEE and ACM.

Honors and Awards

Regents Faculty Fellowship/Faculty Development Award, UCR, Sept. 2003

Service

Organizing Committee member: International Conference on Hardware/Software Codesign & System Synthesis (CODES+ISSS), 2003-005

Topic Program Chair/Co-Chair: "System Design Methods and Case Studies" at Design Automation and Test in Europe (DATE), 2004-06

Technical Program Committee member: Design Automation and Test in Europe (DATE) 2002-2006. International Workshop on Hardware/Software Codesign (CODES), 2002-2005. International Conference on Application of Concurrency to System Design (ACSD), 2003. International Conference on Compilers, Architecture, and Synthesis for Embedded Systems (CASES), 2005

Grant proposal Panelist: NSF SBIR/STTR panel: "Sensory Networks", 2004.

Grant proposal Reviewer: NSF SBIR/STTR panel: "Engineering Applications: Computation & Simulation", 2003.

Journal Reviewer: IEEE Transactions on Computer Aided Design of Integrated Circuit and System, 1999-present, IEEE Transactions on Very Large Scale Integration, 2003-present, Design Automation of Embedded Systems, 1997-present, ACM Transactions on Embedded Computing Systems 2003-present.

Conference Reviewer: Design Automation Conference, 1998-present.

Tao Jiang
Professor

Degrees

Ph.D., Computer Science, University of Minnesota, 1988
B.Sc., Computer Science, University of Science and Technology, China, 1984

University of California, Riverside, Service

Professor, III, 7/1/1999
Professor, IV, 7/1/2002
Professor, V, 7/1/2004

Other Professional Experience

July 1998-Aug. 2001	Professor, Dept. of Computing and Software, McMaster University
Sept. 1995-May 1996	Visiting Associate Professor, Dept. of Comp. Sci. and Eng., University of Washington
July 1993-July 1998	Associate Prof., Dept. of Comp. Sci. and Syst., McMaster University
Jan. 1989-July 1993	Assistant Prof., Dept. of Comp. Sci. and Syst., McMaster University

Consulting and Patents

I have consulted for Shanghai Center for Bioinformation Technology (2003 - present).

Registrations

None.

Publications

J. Borneman, M. Chrobak, G. Della Vedova, A. Figueroa, and T. Jiang. Probe selection algorithms with applications in the analysis of microbial communities, Bioinformatics vol. 17, pp. S39-S48, 2001.

T. Jiang, P. Kearney and M. Li. A polynomial time approximation scheme for inferring evolutionary trees from quartet topologies and its application. SIAM Journal on Computing, 30(6), 1942-1961, 2001. .

T. Jiang, Y. Xu and M. Zhang. Current Topics in Computational Biology, the MIT Press Series on Computational Molecular Biology, MIT Press, March 2002.

T. Jiang, G. Lin, B. Ma and K. Zhang. A general edit distance between RNA structures. Journal of Computational Biology 9(2), 371-388, 2002.

K. Ellrott, C. Yang, F.M. Sladek, and T. Jiang. Identifying transcription factor binding sites through Markov chain optimization. Bioinformatics 18, pp. S100-S109, 2002.

L. Jia, M. Clegg, and T. Jiang. Evolutionary dynamics of the DNA-binding domains in putative R2R3-MYB genes identified from *Oryza sativa* ssp. *Indica* and *japonica* genomes. *Plant Physiology* 134(2), 575-585, 2004.

A. Figueroa, J. Borneman, and T. Jiang. Clustering binary fingerprint vectors with missing values for DNA array data analysis. *Journal of Computational Biology* 11-5, 887-901, 2004.

X. Chen, Z. Su, P. Dam, B. Palenik, Y. Xu, and T. Jiang. Operon prediction by comparative genomics: application to the Synechococcus sp. WH8102 genome. *Nuc. Acids Res.* 32-7, 2147-2157, 2004.

X. Chen, Z. Su, Y. Xu, and T. Jiang. Computational prediction of operons in Synechococcus sp. WH8102, Proc. *15th International Conference on Genome Informatics (GIW)*, Yokohama, Japan, Dec. 13-15, 2004 (best paper award).

J. Zheng, T. Close, T. Jiang, and S. Lonardi. Efficient selection of unique and popular oligos for large EST databases. *Bioinformatics* 20, 2004, 2101-2112.

J. Li and T. Jiang. An exact solution for finding minimum recombinant haplotype configurationson pedigrees with missing data by integer linear programming. *Journal of Comp. Biology 12(6):702-718,* 2005; also presented at *RECOMB'04.*

J. Li and T. Jiang. Haplotype-based linkage disequilibrium mapping via direct data mining. *Bioinformatics*, accepted Sept. 2005. (Advance Access published Oct. 25, 2005.)

H. Li and T. Jiang.A class of edit kernels for SVMs to predic translation initiationsites in Eukaryotic mRNAs. *Journal of Comp. Biology* 12(6):719-739, 2005; also presented at *RECOMB'04*.

X. Chen, J. Zheng, Z. Fu, P. Nan, Y. Zhong, S. Lonardi, and T. Jiang. Aassignment of orthologous genes via genome rearrangement. *IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB)* 2(4), 302-315, 2005.

Z. Fu, X. Chen, V. Vacic, P. Nan, Y. Zhong, and T. Jiang. A parsimony approach to genome-wide ortholog assignment. *RECOMB'06*.

Professional Societies

IEEE, IEEE Computer Society, ACM, and AAAS.

Honors and awards

Guo Mo-Ro Prize, University of Science and Technology of China, 1983
Japan Society for the promotion of Science Research Fellowship, 1996
The best paper award, 15th International Conf. on Genome Informatics (GIW), Yokohama, Japan, 12/2004

Service

Program committee member for numerous international conferences.
Member of editorial boards of *J. of Computer Science and Technology*, *J. of Combinatorial Optimization*, *J. of Bioinformatics and Computational Biology, Algorithmica, BMC Bioinformatics, IEEE/ACM Transactions on Computational Biology and Bioinformatics*
Five NSF Review Panels.
University of California Life Science Informatics (LSI) Task Force, 2000 – present.

Vasiliki (Vana) Kalogeraki
Assistant Professor

Degrees
Ph.D., Electrical & Computer Engineering, University of California, Santa Barbara, 2000
M.S., Computer Science, University of Crete, 1996
B.S., Computer Science, University of Crete, 1994

University of California, Riverside, Service
Assistant Professor, II, 10/1/2002
Assistant Professor, III, 7/1/2004

Other Professional Experience
2001-2002, Hewlett-Packard Laboratories, Palo Alto, CA, Research Scientist.
1997-2000, University of California, Santa Barbara, Graduate Student Researcher.

Consulting and Patents
"Method and apparatus for representing data available in a peer-to-peer network using bloom-filters," A. Mohan, V. Kalogeraki, A. van Moorsel.
"Interest-based Connections in Peer-to-Peer Networks," M.Ramanathan, V.Kalogeraki, J.Pruyne.
"Search Network for Searching Services on the Internet," V. Kalogeraki, J. Pruyne.

Registrations
California.

Publications
1. "Structuring Topologically-Aware Overlay Networks using Domain Names", D. Zeinalipour-Yazti,. V. Kalogeraki, *Elsevier Computer Networks Journal*, to appear.
2. "Distributed Middleware Architectures for Scalable Media Services", V. Kalogeraki, D. Zeinalipour-Yiazti, D. Gunopulos, A. Delis, *Elsevier Journal of Network and Computer Architecures,* to appear.
3. "Resilient and Energy Efficient Tracking in Sensor Networks", M. Halkidi, D. Papadopoulos, V. Kalogeraki, D. Gunopulos, *International Journal of Wireless and Mobile Computing.*
4. "Exploiting Locality for Scalable Information Retrieval in Peer-to-Peer Networks", D. Zeinalipour-Yazti,V. Kalogeraki, D. Gunopulos, *Information Systems Journal*, Elsevier, vol. 30, no. 4, 2005, pp. 277-298.
5. "Efficient Online State Tracking Using Sensor Networks", M. Halkidi, V. Kalogeraki, D. Gunopulos, D. Papadopoulos, D. Zeinalipour-Yazti, M. Vlachos, *7th International Conference on Mobile Data Management*, Nara, Japan, May 2006.
6. "Load Balancing Techniques for Distributed Stream Processing Applications in Overlay Environments", Y.Drougas, T.Repantis, V.Kalogeraki, *ISORC*, Gyeongju, Korea, Apr 2006.
7. "MicroHash: An Efficient Index Structure for Flash-Based Sensor Devices", D. Zeinalipour-Yazti, S. Lin, V. Kalogeraki, D. Gunopulos and W. Najjar, *4th USENIX Conference on File and Storage Technologies (FAST '05)*, San Francisco, CA, December 2005.
8. "A Rate Control Framework for Supporting Multiple Classes of Traffic in Sensor Networks", K. Karenos, V. Kalogeraki and S. Krishnamurthy, *RTSS2005*, Miami, Florida, Dec. 2005.

9. "Data Dissemination in Mobile Peer-to-Peer Networks", T. Repantis and V. Kalogeraki, *International Conference on Mobile Data Management*, Ayia Napa, Cyprus, May 2005.
10. "Coordinated Media Steaming and Transcoding in Peer-to-Peer Systems", F. Chen, T. Repantis and V. Kalogeraki, *IEEE IPDPS*, Denver, Colorado, April 2005.

Professional Societies
Association for Computing Machinery, Member.

Honors and awards
- Keynote Speaker, "International Workshop on Mobile Location-Aware Sensor Networks (MLASN)", Nara, Japan, May 2006.
- Regents' Faculty Fellowship/Faculty Development Award, UCR, June 2003.
- Academic Senate Research Funds Award, UCR, June 2003 & June 2005.
- Hewlett-Packard Research Award, 2002.

Service
- Editorial Board Member, *Ad hoc Networks Journal.*
- Program Committee co-Chair, "10th IEEE International Symposium on Object and component-oriented Real-time distributed Computing", Santorini, Greece, May 2007.
- General co-Chair, "14th International Workshop on Parallel and Distributed Real-Time Systems (WPDRTS)", Rhodes, Greece, April 2006.
- Program Committee Chair, "IEEE International Conference on Pervasive Services", Santorini, Greece, July 2005.
- Program Committee co-Chair (with L. DiPippo), "13th International Workshop on Parallel and Distributed Real-Time Systems (WPDRTS)", Denver, Colorado, April 2005.
- Co-author of the Standard "Real-Time CORBA 2.0: Dynamic Scheduling Final Submission," OMG Technical Committee Document orbos/2001-06-09, OMG, June 2001
- Program Committee member in: RTSS 2006, MDM 2006, RTAS 2006, RTSS 2005, MDM 2005, NetDB2005, PerCom 2005, SME 2005, MASS 2004, Internet and Next Generation Networks Symposium, Globecom 2004, RTAS 2004, WPDRTS 2004, DBISP2P 2004, MP2P'04, ICDCS 2003, WPDRTS 2003, MDDS 2002, PDPTA 2002.
- Tutorials on "Peer-to-Peer Technologies" at the ACM/IFIP/USENIX International Middleware Conference (Middleware 2003), Rio de Janeiro, Brazil (June 2003) and the International Symposium on Distributed Objects and Applications (DOA'02), Irvine, CA (October 2002).

Professional Development
Vana Kalogeraki has published over 70 technical papers, including co-authoring the OMG CORBA Dynamic Scheduling Standard. She has organized and served on program committees for several technical conferences. She has delivered tutorials and seminars on peer-to-peer computing. She is currently an Associate Editor for the Ad hoc Networks Journal. Her research is supported by NSF.

Eamonn Keogh
Assistant Professor

Degrees

Ph.D., Computer Science, University of California, Irvine, 2001
M.S., Computer Science, University of California, Irvine, 1997
B.S., Computer Science, Cal State University, San Marcos, 1995

University of California, Riverside, Service

Assistant Professor, II, 7/1/2001
Assistant Professor, III, 7/1/2003
Assistant Professor, V, 7/1/2005

Other Professional Experience

1995-2001. University of California, Irvine. Research Assistant, Department of Computer and Information Science.

Publications

In the last 5 years Dr. Keogh has published more than 60 papers, including multiple papers in the top database journal (VLDB Journal), multiple papers in the top data mining journal (DMKD Journal), multiple papers in the top knowledge management conference (KAIS).
In the same time period Dr. Keogh has also been active in publishing in top conferences, including 10 papers in ACM SIGKDD and 6 papers in IEEE ICDM (the two top conferences in data mining) and 5 papers in VLDB (the top conference in databases). Seven of Dr. Keoghs papers have attracted more than 100 references each. A full list of publications can be found here http://www.cs.ucr.edu/~eamonn/selected_publications.htm

Professional Societies

ACM and IEEE member.

Honors and awards

SDGE Scholarship; 1993
Best Paper Award, runner up KDD97
Best Paper Award WUSS 97
National Research Service Award, UCI; 1998
Joseph J. Fischer Memorial Fellowship Award; 1998
Best Paper SIGMOD 2001

TAC for ICS; 2000-2001
Award for Teaching Excellence, 5th Annual Celebration of Teaching, UCI, 2001
Regent's Faculty Fellowhsip/Faculty Development Award, 2002
NSF Career Award #0237918, 9/2003
Bourns College of Engineering Outstanding Teacher Award, 03/04
Regents' Faculty Fellowship/Faculty Development Award, 9/2005
UCSD Mentor Recognition Award. 2005

Service

Curator of the UCR Time Series Data Mining Archive:
www.cs.ucr.edu/~eamonn/TSDMA/index.html

Curriculum Development for the California statewide COSMOS program, *Using the fingerprint recognition problem to motivate problems in computer science*. Parts of this curriculum have since been published as a journal paper, and have been adopted by law enforcement agencies/educators on 5 continents including, Rio Hondo College (California), Murdoch University (Australia), the University of Strathclyde (Scotland), Lincoln Nebraska Police Department (USA) and University of Central Lancashire (England).

Curriculum Development: UC Irvine ICS 1A/ ICS 1P/ ICS 10. The latter is a special class that is designed to be high school senior's first college experience.

Faculty mentor/ research leader for students participating in the California Alliance for Minority Participation in Science, Engineering and Mathematics.

Program Committees: 2002 IEEE International Conference on Data Mining, 2002 Conference on Information and Knowledge Management, International Conference on Information and Knowledge Engineering, 2001 IEEE International Conference on Data Mining.

Professional Development

Dr. Keogh is an action editor for the top data-mining journal, DMKD, and has reviewed (at least once a year over the last 3 years), for the VLDB Journal, TKDE Journal, KAIS Journal, TODS Journal and the PAMI Journal. He has been on the program committees (at least 3 different years each) of ACM SIGKDD, SIAM SDM and IEEE ICDM.
Dr. Keogh has given 10 tutorials on five continents and invited talks in Google, Microsoft, Yahoo, Monash University, IBM. Yorktown, Symposium on Machine Learning for Anomaly Detection. Stanford, University of Maryland, University of Toronto, Queensland Institute of Technology, UC Dublin. Australasian Workshop on Data Mining and Web Intelligence, Norwegian University of Science and Technology, ISCA Technologies, The Aerospace Corporation, ChevronTexaco, Lawrence Livermore Lab, University of Aberdeen, NASA, Jet Propulsion Laboratory, Pasadena.

Srikanth Krishnamurthy
Associate Professor

Degrees

Ph.D., Electrical and Computer Engineering, University of California, San Diego, 1997
M.Sc., Electrical and Computer Engineering, Concordia University, 1994
M.Sc.(Hons), Physics, Birla Institute of Technology & Science, 1992
B.E.(Hons), Electrical and Electronics Engineering, Birla Institute of Technology & Science, 1992

University of California, Riverside, Service

Assistant Professor, III, 1/1/2001
Assistant Professor, IV, 7/1/2002
Assistant Professor, V, 7/1/2004
Associate Professor, II, 7/1/2005

Other Professional Experience

1998-2000. HRL Laboratories LLC, Malibu, CA. Research Staff Scientist (1999-2000), Research Staff member (1998-1999).

Patents

1. Krishnamurthy, S.V., Ercetin, O., and Dao, S., "Method and Apparatus for Predictive QoS based Routing for Broadband Low Earth Orbit Satellite Networks", US 6,609,002, B1.
2. Krishnamurthy S.V., Kondylis, G.D., and Dao, S., "Method and Apparatus for Multicasting Real-time Variable Bit-Rate Traffic in Wireless Ad hoc Networks", US 6,621,805.
3. Krishnamurthy S.V., Kondylis, G.D., and Dao, S., "Method and Apparatus for Multicasting Real-Time Traffic in Wireless Ad hoc Networks", US 6,721,290.
4. Krishnamurthy, S.V., ElBatt. T., and Dao, S., "Power Management for Throughput Enhancement in Wireless Ad Hoc Networks", US 6,735,448.
5. Krishnamurthy, S.V., Ahmed, M., and Kondylis, G., "Method and apparatus for determining position and trajectory of gateways to optimize performance in hybrid non-terrestrial-terrestrial multi-hop mobile networks", US 6,807, 158.
6. Krishnamurthy, S.V., Sisalem, D., and Dao, S., "System for pricing-based quality of service (PQoS) control in networks", US 6,910,024.
7. Krishnamurthy S.V., Sinha, P and Dao, S., "Scalable Unidirectional Routing using ZRP Extensions for Wireless Ad-Hoc Networks". US 6,990,075.

Selected Publications (journal articles since 2001)

1. Krishnamurthy, S.V., Acampora, A.S., and Zorzi, M., -- "Polling based Medium Access Control Protocols for use with Smart Adaptive Array Antennas", IEEE Transactions on Networking, April 2001.

2. Ercetin, O.E., Krishnamurthy, S.V., Dao,S., and Tassiulas, L, " Provision of Guaranteed QoS in Broadband Low Earth Orbit Satellite Networks", Computer Networks Journal (COMNET), Special Issue on Broadband Satellite Networks, Elsevier Publications, May 2002.
3. Acampora, A.S., Gholmieh, R., and Krishnamurthy, S.V., "On Tolerating Single and Double Link Failures in Symmetric Grid Networks", to appear in the Journal on High Speed Networks.
4. Ahmed M., Krishnamurthy S.V., Katz, R.H. and Dao, S., "Trajectory Control of Range Extension Gateways in Mobile Ad Hoc Networks", Computer Networks Journal, (COMNET), August 2002.
5. Krishnamurthy, S.V., Acampora, A.S., and Zorzi, M., -- "On the Capacity of TDMA and CDMA for Broadband Packet Wireless Access", IEEE Transactions on Vehicular Technology, January 2003.
6. Ye, Z., Krishnamurthy S.V., and Tripathi, S.K., -- "A Routing Framework for Providing Robustness to Node Failures in Mobile Ad Hoc Networks", Journal on Ad Hoc Networks, Elsevier Publications, January 2004
7. Klemm F., Ye, Z., Krishnamurthy S.V., and Tripathi S.K., "Alleviating the Effects of Mobility on TCP performance in Ad Hoc Networks with Signal Strength Based Link Management", Journal on Ad Hoc Networks, Elsevier Publications, March 2005.
8. Ge, M., Krishnamurthy S.V., and Faloutsos, M., "Application versus Network Layer Multicasting in Ad Hoc Networks: the ALMA Routing Protocol", Journal on Ad Hoc Networks, Elsevier Publications, March 2006.
9. Eriksson J., Faloutsos, M., and Krishnamurthy S.V., "DART: Dynamic Address Routing for Scalable Ad Hoc and Mesh Networks", the IEEE/ACM Transactions on Networking (to appear).
10. Zorzi, M., Zeidler, J., Swindlehurst, L, Jensen, M., Krishnamurthy, S.V., Rao, B., and Proakis, J., "Cross-Layer issues in MAC Protocol Design for MIMO Ad hoc Networks", IEEE Wireless Communications Magazine (to appear).
11. Broustis I., Molle, M., Krishnamurthy, S.V., Faloutsos M., and Foerster, J., "A New Binary Conflict Resolution Based MAC Protocol for Impulse-based UWB Ad hoc Networks", Wiley Journal on Wireless Communications and Mobile Computing (WCMC), Special Issue on Wireless Ad hoc Networks: Technologies and Challenges (to appear).
12. Law L.K., Krishnamurthy, S.V., and Faloutsos M., ``A Novel Adaptive Protocol for Lightweight Efficient Multicasting in Ad hoc Networks", Computer Networks Journal (COMNET) – (to appear).

Professional Societies

IEEE
ACM

Honors and awards

- Concordia University Graduate Fellowship
- Technology Achievement Award from HRL Laboratories, 2000
- UC Micro Award and match from HRL Laboratories, 2001
- NSF Career Award #0237920, 8/2003

Service

Technical Co-Chair for Workshop on Satellite Based Information Services (WOSBIS) 1999, held in association with GLOBECOM 1999 in Rio De Janeiro, Brazil.

On the Technical Program Committee for INFOCOM 2001, Mobihoc 2002, ICC 2003, Mobihoc 2003, INFOCOM 2004.

Brian Linard
Instructor, CS&E Dept.

Degrees

Ph.D. (Physics) from University of Melbourne, Australia (1979) in the field of experimental low-energy nuclear physics
B.Sc. (Honors) degree, major in Physics, from University of Melbourne (1975)

University of California, Riverside, Service

Instructor, CS&E Dept. since 10/1/2001, teaching cs006, cs010, cs012 & cs061

Other Professional Experience

Approx. ten years as an information systems consultant, developing group-ware & collaborative systems applications for the corporate environment. Clients include Ingram Micro Inc. of Santa Ana (CA); RosettaNet of Santa Ana (CA); Edifecs, Inc. of Seattle (WA); and Synergy International of Canberra, Australia.
Approx. five years in the administration of outreach programs of a small international college in Florence, Italy.
Approx. five years as research scientist with the National Telecommunications Lab of Australia in the field of advanced semiconductor materials and the physics of semiconductor devices.

Consulting and Patents

N/A

Registrations

N/A

Publications

N/A

Professional Societies

Australian Institue of Physics

Honors and awards

N/A

Service

I am currently chair of the course committees for cs010, cs012, cs014 and cs061, and am an appointed member of the Non-Senate Faculty Council on Professional Development.

Professional Development

Professional development activities in the last five years:

In my five years of service as an instructor with the CS&E Department, I have been focussed on two major objectives:

- constantly improving my skills as a teacher
- assisting the department in its mission to attract, retain and educate students in the cs disciplines, specifically at the lower division level.

Over this period, I have, in close collaboration with the instruction committee and my colleagues, developed both new approaches and new content for the core cs courses cs10, cs12 and cs61; and have proposed and created a new service course, cs6 (Effective use of the www).

For example, we re-designed the cs10, 12 & 61 labs so that each lab now consists of a sequence of graded exercises designed for incremental learning, emphasizing the many individual skills that must be acquired to master the art of programming.
In addition, we reconfigured the assessment structure of cs10 and 12 to clearly differentiate skill development activities from assessment activities: the former are weighted lightly and made as "low-stress" as possible, the latter are weighted more and are carried out in proctored environments. This has led to demonstrably lower levels of cheating, and a better learning environment.
Again, in both cs10 & 12, the assignments have been designed to incorporate a simple graphics library, and build progressively towards a moderately complex application by the end of the quarter. This engages student interest and allows us to give them exposure to more challenging techniques.

I have also been very actively involved at the departmental level in such efforts as beta testing instructional tools and abet instruments. In particular, I have contributed to establishing the weekly lecturers' meetings with the department chair as a quasi-"lower division instructional committee". This is, in effect, the department's only stable forum dedicated to addressing the whole range of issues pertaining to our lower division students and courses.

In addition, working with my assigned TAs affords me an opportunity to further both of my goals: I try to foster an atmosphere among them of full collaboration and shared responsibility towards our students, providing a mentored experience of profesional engagement which many of our graduate students lack. Naturally, my students benefit considerably from this effort, having enthusiastic and well-prepared TAs.

Finally, in Sptember 2005, I completed the three-day "Essential Teaching Seminar" sponsored by ASME, IEEE and AlChE.

Stefano Lonardi
Assistant Professor

Degrees

Ph.D., Computer Sciences, Purdue University, West Lafayette, IN, 2001
Dottorato di Ricerca, Electrical and Computer Engineering, Universita di Padova, 1999
Laurea, Computer Science, Universita di Pisa, 1994

University of California, Riverside, Service

Assistant Professor, II, 7/1/2001
Assistant Professor, III, 7/1/2003
Assistant Professor, IV, 7/1/2005

Other Professional Experience

May 1999-Aug. 1999. Celera Genomics, Rockville, MD: Intern.

Aug. 1994-April 1995. University of Verona, Italy: Consultant, Dept. of Neurosurgery.

Consulting and Patents

No consulting work;
Patent: S. Lonardi, W. Szpankowski, Methods for Error-resilient LZ'77 Data Compression (pending, U.S. patent application no. 60/456,799)

Publications

A. Bagnall, C. A. Ratanamahatana, E. Keogh, S. Lonardi, G. Janacek, "A Bit Level Representation for Time Series Data Mining with Shape Based Similarity", *Data Mining and Knowledge Discovery*, 2006 (in press).

X. Chen, J. Zheng, Z. Fu, P. Nan, Y. Zhong, S. Lonardi, T. Jiang, "Assignment of orthologous genes via genome rearrangement", *IEEE Transactions on Computational Biology and Bioinformatics*, 2005.

S. Janson, S. Lonardi, W. Szpankowski, "On Average Sequence Complexity", *Theoretical Computer Science*, vol. 326, no. 1-3, pp.213-227, 2004.

J. Zheng, T. J. Close, T. Jiang, S. Lonardi, "Efficient Selection of Unique and Popular Oligos for Large EST Databases", *Bioinformatics*, vol. 20, no. 13, pp.2101-2112, 2004.

A. Apostolico, M. E. Bock, and S. Lonardi, "Monotony of Surprise and Large-Scale Quest for Unusual Words", *Journal of Computational Biology*, vol.10, no.2/3, pp.283-311, 2003. Also, *Proceedings of ACM Annual Conference on Research in Computational Molecular Biology* (RECOMB'02), pp.22-31, Washington, DC, 2002.

Professional Societies

ACM, IEEE Computer Society, International Society for Computational Biology

Honors and awards

1996: Purdue University Tuition Waiver
2000: "Bioinformatics and Genomic Research" fellowship sponsored by the Italian Ministry of University and Research and the Research Program of the University of Padova
2000: Student Research Award, Purdue University, Chapter of Upsilon Pi Epsilon
2005: NSF Career Award, NSF Science and Engineering Information Integration and Informatics program

Service

- Faculty member of the UCR Graduate Program in Genetics, the UCR Center for Plant Cell Biology, the UCR Genomics Institute, and the UCR Graduate Program in Cell, Molecular and Developmental Biology
- Member of the College of Engineering executive committee
- Member of the Steering committee of the ChemGen IGERT program
- Member of the UC Information Technology for Life Sciences Research Council
- Program committee member:
    - String Processing and Information Retrieval, SPIRE 2005 (Glasgow, UK)
    - SIAM Conference on Data Mining, SDM'06 (Bethesda, MD)
    - Asia Pacific Bioinformatics Conference, APBC 2006 (Taiwan)
    - Workshop on Knowledge Discovery in the Web, WEBKDD 2005 (Chicago, IL)
    - String Processing and Information Retrieval, SPIRE 2005 (Buenos Aires, Argentina)
    - IEEE Int. Conference on Tools with Artificial Intelligence, ICTAI 2005 (Hong Kong)
    - Symposium on Combinatorial Pattern Matching, CPM 2004 (Istanbul, Turkey)
    - IEEE Symposium on Bioinformatics and Bioengineering, BIBE 2004 (Taichung, Taiwan)

Professional Development

2003: Introduced a new advanced graduate course (CS234), ``Computational Methods for the Analysis of Biomolecular Data"
2006: Graduated two Ph.D. students (Qiaofeng Yang, and Jie Zheng)

Kris Miller
Lecturer

Degrees

B.S. (Cum Laude), Computer Science, UC Riverside, 2001

University of California, Riverside, Service

3 years

Honors and awards

2004-5 Outstanding Lecturer Award, Bourns College of Engineering, UC Riverside
2001 Cum Laude, UC Riverside
2001 Dean's Fellowship Award, UC Riverside, Graduate Division

Mart Molle
Professor

Degrees

Ph.D., Computer Science, University of California, Los Angeles, 1981
M.S., Computer Science, University of California, Los Angeles, 1978
B.Sc. (Hons), Mathematics and Computer Science, Queen's University at Kingston, Canada, 1976

University of California, Riverside, Service

Professor, II, 7/1/1994
Professor, III, 7/1/1997
Chair, Department of Computer Science & Engineering, 7/1/1999 – 7/1/2002
Professor, IV, 7/1/2003
Professor, V, 7/1/2005

Other Professional Experience

1981-1994. University of Toronto. Professor, Department of Computer Science (1991-94). Associate Professor (1985-1991). Assistant Professor (1981-1985).
1987-1988. University of California, Irvine. Visiting Associate Professor, Information and Computer Science.

Consulting and Patents

- IEEE Registration Authority, New York, 1998 – present, consultant, technical review of applications to assign a unique EtherType reserved number to new network protocols.
- Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, Washington, DC, 2001, expert witness, on Ethernet-related intellectual property rights for an International Trade Commission hearing.
- Wilson Sonsini & Rosati, Menlo Park, CA, 2000, expert witness, on Ethernet-related intellectual property rights.
- Technical Management Consultants, Woodland Hills, CA, 1999, consultant, evaluated a high speed modem for an investment group.
- San Bernardino County Office of Education, San Bernardino, CA, 1998, consultant, technical expert on a review panel for a major Information Technology upgrade plan.
- Metricom, Inc., San Jose, CA, 1996, consultant, technical review of a new wireless network protocol.

Patent Number	Date Issued	Title
5,978,383	11/02/1999	Repeaters for reducing collisions in an Ethernet network
5,600,651	02/04/1997	Binary logarithmic arbitration method for carrier sense multiple access with collision detection network medium access control protocols

Publications

A new adaptive channel reservation scheme for handoff calls in wireless cellular networks *Xu, Z.; Ye, Z.; Krishnamurthy, S.; Tripathi, S.; Molle M.;* Proc. IFIP Networking 2002, Pisa, Italy, May 19-24, 2002, pp. 672-684

A user-friendly self-similarity analysis tool *Karagiannis, T.; Faloutsos, M.; Molle, M;* Computer Communication Review Volume, Special Section on Tools and Technologies for Networking Research and Education, Vol. 33(3), 2003 pp.81-93
Short-Circuiting the Congestion Signaling Path for AQM Algorithms using Reverse Flow
Thinking Outside the Box: Extending 802.1x Authentication to Remote "Splitter" Ports by Combining Physical and Data Link Layer Techniques. *Saha, A.; Molle, M.;* Proc. IEEE 28th Conference on Local Computer Networks Konigswinter , November 2003, pp. 324-333
A Nonstationary Poisson View of Internet Traffic *Karagiannis, T.; Molle, M.; Faloutsos, M.; Broido, A.;* Proc. IEEE INFOCOM 2004, Hong Kong, March 2004.
A Linear-Time Optimal-Message Distributed Algorithm for Minimum Spanning Trees *Faloutsos, M.; Molle, M.;* Distributed Computing. Vol. 17(2), August 2004, pp. 151-170
Long-range dependence: Ten years of Internet traffic modeling *Karagiannis, T.; Molle, M.; Faloutsos, M.;* IEEE Internet Computing, Special Issue on Measuring the Internet.Vol. 8(5), September, 2004.
Design and Implementation of Application-based Secure VLAN. *Zhu, M.; Molle, M.; Brahmam, B.;* Proc. IEEE 29th Conference on Local Computer Networks (LCN ’04), November 2004
Controlling Spam E-mail at the Routers. *Agrawal, B.; Kumar, N.; Molle, M.;* Proc. IEEE International Conference on Communcations (ICC ’05), May 2005
Can We Use Product Form Solution Techniques for Networks with Alternate Paths? *Elhafsi, E.; Molle, M.; Manjunath, D.;* Proc. International Symposium on Performance Evaluation of Computer and Telecommunications Systems, July 2005
Matching *Molle, M.; Xu, Z.;* Computer Communications, Special Issue on End-to-End Quality of Service Differentiation. Hassanein, H. and Lutfiyya, H. (eds.), Vol. 28(18), 2005 pp. 2082-2093.

Professional Societies

American Association for the Advancement of Science
Institute of Electrical and Electronic Engineers

Honors and Awards

Major James A. Rattray M.C. Scholarship in Science, Queen's University, 1975 – 1976
Chancellor's Intern Fellowship, UCLA, 1976 – 1980
Best Paper, International Conference on Communications, Toronto, Canada, 1986
Award Paper, International Seminar on Performance of Distributed and Parallel Systems, Kyoto, Japan, 1988

Walid Najjar
Professor

Degrees

Ph.D., Computer Engineering, USC, 1988
M.S., Computer Engineering, USC, 1985
B.E., Electrical Engineering, American University of Beirut, 1979

University of California, Riverside, Service

Associate Professor, III, 7/1/2000
Professor, I, 7/1/2002
Professor, II, 7/1/2004

Other Professional Experience

1989-2000. Colorado State University. Associate/Assistant Professor of Computer Science,

1988-1989. USC Information Sciences Institute, Marina del Rey, CA. Computer Scientist.

Consulting and Patents

No patents. No consulting activities in the past five years.

Publications

Principal publications of last three years.

1. B. A. Buyukkurt, Z. Guo, W. Najjar. *Impact of Loop Unrolling on Throughput, Area and Clock Frequency in ROCCC: C to VHDL Compiler for FPGAs*, Int. Workshop On Applied Reconfigurable Computing (Arc2006) Delft, The Netherlands, March 1-3, 2006.
2. Z. Guo, B. Buyukkurt, W. Najjar and K. Vissers. *Optimized Generation of Data-path from C Codes for FPGA*s, in IEEE/ACM Design Automation and Test Europe (DATE) 2005.
3. G. Stitt, Z. Guo, F. Vahid, and W. Najjar. *Techniques for Synthesizing Binaries to an Advanced Register/Memory Structure.* ACM/SIGDA Symp. on Field Programmable Gate Arrays (FPGA), Feb. 2005.
4. Z. Guo, A. B. Buyukkurt and W. Najjar. *Input Data Reuse In Compiling Window Operations Onto Reconfigurable Hardware,* Proc. ACM Symp. On Languages, Compilers and Tools for Embedded Systems (LCTES 2004), Washington DC, June 2004.
5. Z. Guo, W. Najjar, F. Vahid and K. Vissers. *A Quantitative Analysis of the Speedup Factors of FPGAs over Processors,* In. Symp. on Field-Programmable gate Arrays (FPGA), Monterrey, CA, February 2004.
6. D. Kulkarni, W. Najjar, R. Rinker, F. Kurdahi. *Compile-time Area Estimation for LUT-based FPGAs*. To appear in ACM Trans. on Design Automation of Electronic Systems,

7. G. Venkataramani, W. Najjar, F. Kurdahi, N. Bagherzadeh, W. Bohm and J. Hammes. *Automatic Compilation to a Coarse-grained Reconfigurable System-on-Chip.* ACM Trans. on Embedded Computing Systems, November 2003.
8. W. Najjar, W. Böhm, B. Draper, J. Hammes, R. Rinker, R. Beveridge, M. Chawathe and C. Ross. *From Algorithms to Hardware – A High-Level Language Abstraction for Reconfigurable Computing*, in IEEE Computer, August 2003.
9. D. Zeinalipour-Yazti, S. Lin, V. Kalogeraki, D. Gunopulos, W. Najjar. *MicroHash: An Efficient Index Structure for Flash-Based Sensor Devices*, in 4th USENIX Conf. on Files and Storage Technologies (FAST 2005), San Francisco, CA, December 2005.
10. D. C. Suresh, B. Agrawal, W. A. Najjar, J. Yang. *VALVE: Variable Length Value Encoding for Off-Chip Data Buses*, IEEE Int. Conf. on Computer Design, San Jose, CA, October 2005.
11. S. Neema, A. Mitra, A. Banerjee, W. Najjar, D. Zeinalipour-Yazti, D.Gunopulos, V. Kalogeraki. *NODES: A Novel System Design For Embedded Sensor Systems*, SPOTS Track, Int. Symp. On Information Processing in Sensor Networks (IPSN), SPOTS Track, 2005, Los Angeles, CA.
12. D. Zeinalipour-Yazti, V. Kalogeraki, D. Gunopulos, A. Mitra, A. Banerjee, W. Najjar. *Towards In-Situ Data Storage in Sensor Databases*, PCI 2005, Vollos. Greece
13. A. Mitra, A. Banerjee, W. Najjar, D. Zeinalipour-Yazti, D.Gunopulos, V. Kalogeraki. *High Performance, Low Power Sensor Platforms Featuring Gigabyte Scale Storage*, SenMetrics 2005, San Diego, CA, July 2005.
14. A. Banerjee, A. Mitra, W. Najjar, D. Zeinalipour-Yazti, V. Kalogeraki and D. Gunopulos. *Co-S: A High Performance Co-processing Sensor Architecture for Offloading Sensing and Data Processing*, SECON 2005, Santa Clara, CA, September 2005.
15. D.C. Suresh, B. Agrawal, W. A. Najjar and J. Yang, *A Tunable Bus Encoder for Off-chip Data Buses*, in Int. Symp. on Low Power Electronics Design (ISLPED 2005), San Diego, CA, August 2005.

Professional Societies

IEEE and ACM.

Honors and Awards

1995 - 1996 Graduate Teaching Award, College of Natural Sciences, Colorado State University

Service

Program Committees: ISSS/CODES (1999-2005), CASES (2003, 2004), HPCA (2003, 2007).
Track Program Chair, Reconfigurable Computing, DATE (2005 -- 2007).
Program Co-Chair (with Bill Mangione-Smith) CASES 2005.
Editorial Board: IEEE Computer Architecture Letters, Springer-Verlag Parallel Computing.

Professional Development
Attends multiple conferences, symposia and workshops every year.

Thomas Payne
Associate Professor and Chair

Degrees

M.S./Ph.D., Mathematics, University of Notre Dame, 1967
B.S., Mathematics, Marquette University, 1964

University of California, Riverside, Service
Assistant Professor, 7/1/1967
Assistant Professor, III, 7/1/1969
Assistant Professor, IV, 7/1/1971
Associate Professor, I, 7/1/1975
Associate Professor, II, 7/1/1987
Associate Professor, III, 7/1/1990
Associate Professor, IV, 7/1/2000

Other Professional Experience
IBM Junior Engineer: Summer '60 and '61
IBM Programmer: Summer '62, '63, and '64
RAIR Programmer: Summer '70 and '71
Member Board of Directors: RAIR '71-'85; VideoPhone,Inc '85-'90; Forval Int. '05-present

Consulting and Patents
RAIR '77-'82; VideoPhone, Inc '85-'90

Registrations: (none)

Publications

Tilley, Scott; Huang, Shihong; and Payne, Tom. "On the Challenges of Adopting ROTS Software." To appear in Proceedings of the 3rd International Workshop on Adoption-Centric Software Engineering (ACSE 2003: May 9, 2003; Portland, OR), 2003.

Winters, T., Shelton, C., Payne, T., Mei, G. (2005) Topic Extraction from -Level grades. AAAI-05 Workshop: Educational Data Mining

Winters, T., Payne, T. (2005) What Do Students Know: An Outcojmes-Based assessment System. First International Computging Education Research Workshop (ICER 05), Seattle, Washington.

Winters, T., Payne, T. (2006), Closing the Loop on Test Creation: A Question Assessment Mecdhanism for Instructors. ACM SIGCSE, Symposium 2006, Houston, Texas.
Winters, T., Payne, T. (2006). Computer Aided Grading with Agar. FECS 2006

Under submission: Spacco, J., Winters, T., Payne, T. (2006). Inferring Use Cases from Unit Testing AAAI-06 Workshop: Educational Data Mining.

Under submission: Winters, T., Shelton, C., Payne, T. (2006). Predicting Missing Entries in Score Matrices AAAI-06 Workshop: Educational Data Mining.

Tilley, Scott; Huang, Shihong; and Payne, Tom. "Just Enough Understanding and Not Enough Time: On Why Tools Aren't Used to Understand Complex Code." Technical Report (in progress).

Professional Societies

ACM

Honors and awards

T. J. Watson Memorial Scholarship
NASA Traineeship

Service

Chair: CNAS Dean Search '99-'00 and '00-'01
Chair: Dept. of CS&E '02-present
Acting Associate Dean Bourns College of Engineering: Spring '02

Professional Development

Best Practices in Assessment Workshop, Rose-Hulman, Winter '05
Annual ABET Conference, San Diego, Fall '05

Teodor Przymusinski
Professor

Degrees

Habilitated Ph.D., Mathematics, Institute of Math, Polish Academy of Sciences, 1979
Ph.D(Hons), Mathematics, Institute of Math, Polish Academy of Science, 1974
M.Sc(Hons), Mathematics/Informatics, University of Warsaw, Poland, 1972

University of California, Riverside, Service

Professor, III, 7/1/1991
Professor, IV, 7/1/1994
Professor, V, 7/1/1997
Professor, VI, 7/1/2000

Honors and awards

First Prize in the Polish Mathematical Society Competition for the best M.Sc. Thesis (The Marcinkiewicz Competition)
Scientific Award of the Institute of Mathematical Sciences of the Polish Academy of Sciences, 1979
Scientific Award of the Science Section of the Polish Academy of Sciences, 1980
Outstanding Contribution Award at the 1st Int. Conf. on Principles of Knowledge Representation and Reasoning (KR'89), Toronto, May 1989
Calouste Gulbienkian Professor, Universidade Nova de Lisboa, Lisbon, Portugal, 1997
Founding member of the Center for Research in Intelligent Systems (CRIS) at UCR, 1998.

Chinya Ravishankar
Professor

Degrees
Ph.D., Computer Science, University of Wisconsin, Madison, 1987
M.S., Computer Science, University of Wisconsin, Madison, 1986
B. Tech, Chemical Engineering, Indian Institute of Technology, 1975

University of California, Riverside, Service
Professor, I, 7/1/1999
Professor, II, 7/1/2002
Professor, III, 7/1/2005

Other Professional Experience
Assistant Professor, University of Michigan – Ann Arbor, 1986-1991
Associate Research Scientist, University of Michigan – Ann Arbor, 1992 – 1996
Research Scientist, University of Michigan – Ann Arbor, 1996 - 1999

Consulting and Patents
Patents (jointly with W. K. Ng) for *Tuple Difference Coding*, a technique for compressing large databases. U.S. Patents 5,603,022, and 5,678,043.

Selected Publications
A. Mayank and C. V. Ravishankar, "Suporting Mobile Device Communications in the Presence of Broadcast Servers", *International Journal of Sensor Networks*, to appear.

S. Kopparty and C. V. Ravishankar, ``A Framework for Pursuit-Evasion Games in $\mathbf{R}^n$", *Information Procession Letters,* Vol. 96, No. 3 (Nov. 2005), pp. 114-122.

Wei Biao Wu and C. V. Ravishankar, ``The Performance of Difference Coding for Compressing Sets and Relations", *Journal of the Association for Computing Machinery*, Vol. 50, No. 5, 2003, pp. 665-693.

David Thaler and C. V. Ravishankar, ``An Architecture for Network Diagnosis and Repair", *Journal of Network and Systems Management*, Vol. 12, No. 2 (June 2004).

Sandeep Gupta, Jinfeng Ni, and Chinya V. Ravishankar, ``Efficient Data Dissemination Using Locale Covers", *Proc. 14th ACM International Conference on Information and Knowledge Management*, Bremen, Germany, November 2005.

Shetal Shah, Krithi Ramamritham, and Chinya V. Ravishankar, ``Client Assignment in Content Dissemination Networks for Dynamic Data", *Proc. 31st International Conference on Very Large Databases (VLDB'05),* Trondheim, Norway, August 2005.

Jinfeng Ni and Chinya V. Ravishankar, ``PA-Tree: A Parametric Indexing Scheme for Spatio-Temporal Queries", *Proc. of 9th Int. Symposium on Spatial and Temporal Databases*, Angra do Reis, Brazil, August 2005.

Shanzhong Zhu and Chinya V. Ravishankar, ``Stochastic Consistency, and Scalable Pull-Based Caching of Erratic Data Sources", *Proc. 30th Int. Conference on Very Large Databases,*

2004, Toronto, September 2004.

Li Zhou and Chinya V. Ravishankar, ``GKE: Efficient Group-Based Key Establishment for Large Sensor Networks", *Proc. SecureComm 2005, The First International Conference on Security and Privacy for Emerging Areas in Communication Networks*, Athens, Greece, September 2005.

Li Zhou and Chinya V. Ravishankar, ``A Fault-Localized Scheme for False-Report Filtering in Sensor Networks", *Proc. of International Conference on Pervasive Systems*, Santorini, Greece, July 2005.

Li Zhou and Chinya V. Ravishankar, ``Efficient, Authenticated, and Fault-Tolerant Key Agreement for Dynamic Peer Groups", *Networking 2004, The Third IFIP-TC6 Conference on Networking*, Athens, Greece, May 2004.

Rui Jiang, Vikram Gupta, Chinya V. Ravishankar, ``Interactions Between TCP and the IEEE 802.11 MAC Protocol", *Proc. DISCEX*, April 2003.

Professional Societies

Senior Member IEEE, Member of the Association for Computing Machinery (ACM).

Service

- Program Committee, ACM Conference on Information and Knowledge Management, 2007.
- Program Committee, International Conference on Mobile Ad-hoc and Sensor Networks, 2007.
- Program Committee, 11th International Conference on Management of Data, Goa, India, 2004.
- Editor-in-Chief Search Committee, IEEE Trans. on Knowledge & Data Engineering, 2004.
- Technical Program Committee, IEEE Infocom 2004.
- Workshop Chair, Pacific Area Knowledge & Data Discovery Conf., Sydney, Australia, 2004.
- Technical Program Committee, SEKE 2003 International Workshop on Data Mining for Software Engineering and Knowledge Engineering, San Francisco, July 2003.
- Guest Editor (with Sibel Adali), Multimedia Tools and Applications, An International Journal, Kluwer Publishers, Special Issue, December 2004 (selected papers from MIS 2001).
- Technical Program Committee, Workshop in Wireless Security (WiSE 2003).
- Associate Editor, IEEE Trans. on Knowledge and Data Engineering, IEEE Press, 1999-2003.
- Program Committee, International Conference on Very Large Databases, Hong Kong, 2002
- Program Committee, Multimedia Information Systems, 2002
- Program Committee, IEEE Int. Conference on Data Engineering, Bangalore, India, 2003.
- Member, Executive Committee, University of California Discovery Program, 2001-2005.
- Member, Committee on Preparatory Education, 2004-date.
- Member, Search Committee, UCR Vice Chancellor for University Advancement, 2002-2003.
- Member, Campus Design Review Board, 2002-2003
- Chair, CS&E Faculty Search Committee, 2002--2003
- Member, Committee on Committees, 2000-2002.
- Member, CS&E Faculty Search Committee, 2001--2002

Christian Shelton
Assistant Professor

Degrees

Ph.D., Computer Science, Massachusetts Institute of Technology, 2001
S.M., Computer Science, Massachusetts Institute of Technology, 1998
B.S., Computer Science, Stanford University, 1996

University of California, Riverside, Service

Assistant Professor, II (OS), 7/1/2003

Other Professional Experience

2003-2004. Intel. Visiting Faculty, application of machine learning to microchip fabrication.

2001-2003. Stanford University. Research Associate, reinforcement learning, game theory, and stochastic processes.

Consulting and Patents

US Patent USSN 09/266,429, "Correspondence between n-dimensional surfaces." Tomaso Poggio and Christian Shelton. Filed: 3/1999. Approved: 9/2002. In final preparation.

Registrations

None (I'm assuming this is as a "licensed engineer")

Publications

Ben Blum, Christian R. Shelton, and Daphne Koller (2006). "**A Continuation Method for Nash Equilibria in Structured Games**." *Journal of Artificial Intelligence Research*, 25, 457-502.

Uri Nodelman, Christian R. Shelton, and Daphne Koller (2005). "**Expectation Maximization and Complex Duration Distributions for Continuous Time Bayesian Networks**." *Proceedings of the Twenty-First International Conference on Uncertainty in Artificial Intelligence* (pp. 421-430).

Uri Nodelman, Daphne Koller, and Christian R. Shelton (2005). "**Expectation Propagation for Continuous Time Bayesian Networks**." *Proceedings of the Twenty-First International Conference on Uncertainty in Artificial Intelligence* (pp. 431-440).

Uri Nodelman, Christian R. Shelton, and Daphne Koller (2003). "**Learning Continuous Time Bayesian Networks**." *Proceedings of the Nineteenth International Conference on Uncertainty in Artificial Intelligence* (pp. 451-458).

Uri Nodelman, Christian R. Shelton, and Daphne Koller (2002). "**Continuous Time Bayesian Networks**." *Proceedings of the Eighteenth International Conference on Uncertainty in Artificial Intelligence* (pp. 378-387).

Charles L. Isbell, Christian R. Shelton, Michael Kearns, Satinder Singh, and Peter Stone (2002). "**Cobot: A Social Reinforcement Learning Agent**." *Advances in Neural Information Processing Systems 2001* (pp. 1393-1400).

Leonid Peshkin and Christian R. Shelton (2002). "**Learning from Scarce Experience**." *Proceedings of the Nineteenth International Conference on Machine Learning* (pp. 498-505).

Christian R. Shelton (2002). "**Reinforcement Learning with Partially Known World Dynamics**." *Proceedings of the Eighteenth International Conference on Uncertainty in Artificial Intelligence* (pp. 461-468).

Professional Societies

Tau Beta Pi, ACM, Informs

Honors and awards

Service

Managing Editor, *Journal of Machine Learning Research*, 2003-present.

Program Committee Member for
ICML 2006, KDD 2006, UAI 2003, 2005, 2006
Reviewer for
Decision Analysis (journal), ATPN 2005, DMKD 2005, VLDB 2004, NIPS 2002, 2004, TOMACS (journal), IJCAI 2003, Mathematics of Operations Research (journal) 2003, ICCV 1999, IJCGA 1997

Professional Development

Academic Conferences:
NIPS (Neural Information Processing Systems): 2005, 2004, 2002, 2001
ICML (International Conference on Machine Learning): 2001, 2002
IJCAI (International Joint Conference on Artificial Intelligence): 2003
UAI (Uncertainty in Artificial Intelligence): 2004, 2003, 2002, 2001
Accreditation Conference:
ABET 2005 Commission Summit, October 26, San Diego

Vassilis Tsotras
Profossor

Degrees

Ph.D., Electrical Engineering, Columbia University, NY, 1991
M. Phil, Electrical Engineering, Columbia University, NY, 1988
M.S., Electrical Engineering, Columbia University, NY, 1986
B.S., Electrical Engineering, National Technical University of Athens, Greece, 1985

University of California, Riverside, Service

Associate Professor, II, 7/1/1997
Associate Professor, III, 7/1/1999
Professor, I, 7/1/2001
Professor, III, 7/1/2004

Other Professional Experience

Summer 1997. University of California, Los Angeles. Sabbatical leave, Department of Computer Science.

1990-1997. Polytechnic University, Brooklyn, NY. Associate Professor, Department of Computer and Information Science (1996-1997). Assistant Professor (1990-1996).

Publications

M. Hadjieleftheriou, G. Kollios, P. Bakalov and V.J. Tsotras: Complex Spatio-Temporal Pattern Queries, Proc. of the 31st *VLDB Conference*, Trondheim, Norway, August 2005.

M. Hadjieleftheriou, G. Kollios, V.J. Tsotras, D. Gunopulos: Indexing Spatio-temporal Archives, *VLDB Journal* (to appear).

G. Kollios, D. Papadopoulos, D. Gunopulos, V.J. Tsotras: Indexing mobile objects using dual transformations, *VLDB Journal*, Vol 14, No.2, pp 238-256, April 2005.

D. Zhang, D. Gunopulos, V.J. Tsotras and B. Seeger: Temporal and Spatio-Temporal Aggregations over Data Streams using Multiple Time Granularities, *Information Systems Journal*,Vol. 28, No. 1-2, 2003.

D. Zhang, V.J. Tsotras and D. Gunopulos: Efficient Aggregation over Objects with Extent, *Proc. PODS*, Madison, Wisconsin, June 2002.

M. Moro, Z. Vagena, V.J. Tsotras: Tree-Pattern Queries on a Light-weight XML Processor, Proc. of the 31st *VLDB Conference*, Trondheim, Norway, August 2005.

S.-Y. Chien, V.J. Tsotras, C. Zaniolo and D. Zhang: Supporting Complex Queries on Multiversion XML Documents, *ACM Transactions on Internet Technology* (to appear).

S-Y. Chien, V.J. Tsotras, C. Zaniolo: Efficient Schemes for Managing Multiversion XML Documents, *VLDB Journal*, Vol. 11, No.4, pp 332-353, 2002.

S.-Y. Chien, Z. Vagena, D. Zhang, V. J. Tsotras, and C. Zaniolo: Efficient Structural Joins on Indexed XML Documents, *Proc. VLDB Conference*, Hong Kong, China, August 2002.

S-Y. Chien, V.J. Tsotras, C. Zaniolo: Efficient Management of Multiversion Documents by Object Referencing, *Proc. VLDB Conference*, pp 291-300, Roma, Italy, Sept. 2001.

Professional Societies

Scientific and professional societies of which a member

Honors and awards

Research Initiation Award, NSF, 1991
BCOE, Outstanding Teacher Award, UCR, 1999 - 2000

Service

Professional Activities: **Associate Editor,** *IEEE Transactions on Knowledge and Data Engineering*, since 2002. **Associate Editor**, *VLDB Journal*, since 2003. **General Chair:** 7th Intl. Symp. on Spatial and Temporal Databases (SSTD), Redondo Beach, CA, 2001. **Program Chair (Databases):** 15th Conference on Information and Knowledge Management (CIKM), Washington D.C., 2006. **Program Co-Chair:** 5th Wksp. on Multimedia Information Systems (MIS), Indian Wells, CA 1999. **PC memberships (recent):** ICDE'98, SIGMOD'99, EDBT'00, ICDE'00, VLDB'00, ICDE'01, TIME'01, EDBT'02, SIGMOD'02, VLDB'03, ICDE'04, ICDE'05, VLDB'06.

Frank Vahid
Professor

Degrees

Ph.D., Computer Science, University of California, Irvine, 1994
M.S., Computer Science, University of California, Irvine, 1991
B.S., Electrical Engineering, University of Illinois, Urbana-Champaign, 1988

University of California, Riverside, Service

Assistant Professor, II, 7/1/1994; Assistant Professor, III, 7/1/1996; Assistant Professor, IV, 7/1/1997; Associate Professor, III, 7/1/1999; Associate Professor, IV, 7/1/2001; Professor, II, 7/1/2003

Other Professional Experience

1988-94. University of California, Irvine. Research Assistant (1988-93), Lecturer (1994).

1989. Hewlett-Packard, Santa Clara, CA. Engineer, Research and Development.

1987. Applied Micro-Circuits Corp., San Diego, CA. Engineer, Research and Development.

General Chair, 8th IEEE/ACM International Workshop on Hardware/Software Codesign (CODES), San Diego, USA. Program chair, 7th IEEE/ACM International Workshop on Hardware/Software Codesign (CODES), Italy, 1999.

General chair, 10th IEEE/ACM International Symposium on System Synthesis (ISSS), Antwerp, Belgium, 1997. Program chair, 9th IEEE/ACM International Symposium on System Synthesis (ISSS), San Diego, USA, 1996.

Steering committee member, program committee member, IEEE/ACM Int. Conf. on Hardware/Software Codesign and System Synthesis (CODES/ISSS), 2003, 2004, 2005; Program committee (PC) member, IEEE/ACM Int. Conf. on Computer Aided Design (ICCAD), 2000, 2001, 2002; PC member, IEEE/ACM CODES, 1996, 1997, 1998, 1999, 2000, 2001; PC member, ACM MICRO conference, 2003; PC member, IEEE/ACM ISSS, 1998, 1999, 2000, 2001; Program committee member, IEEE/ACM Design Automation and Test in Europe Conf. (DATE), 1995, 1996, 1998, 1999, 2003, 2004, 2005; PC member, Compilers, Architectures and Synthesis for Embedded Systems (CASES), 2000, 2002, 2003, 2005; PC member, ACM SIGPLAN Conference and Languages, Compilers and Tools for Embedded Systems (LCTES), 2003. Guest Editor, Special Issue of ACM Trans. on Design Automation of Electronic Systems, Vol. 2, No. 4, Oct. 1997.

Consulting and Patents

1998-2002. Consultant, NEC, Princeton, NJ; 1997-98. Consultant, Motorola, Tempe, AZ;1997-98. Consultant, San Bernardino County Superintendent of Schools, San Bernardino, CA.

Co-inventor on a U.S. patent entitled "Method for core-based system-level power modeling using object-oriented techniques," March 8th 2005, US Patent No. 6,865,526; Co-inventor on a U.S. patent pending "eBlocks -- Electronic Building Blocks," 2005. Co-inventor on a U.S. patent pending "Warp Processing," 2005.

Publications (Selected)

New Decompilation Techniques for Binary-level Co-processor Generation. G. Stitt, F. Vahid, IEEE/ACM International Conference on Computer-Aided Design (ICCAD), 2005.

Hardware/Software Partitioning of Software Binaries: A Case Study of H.264 Decode. G. Stitt, F. Vahid, G. McGregor, B. Einloth. International Conference on Hardware/Software Codesign and System Synthesis (CODES/ISSS), 2005.

A Highly Configurable Cache for Low Energy Embedded Systems. C. Zhang, F. Vahid and W. Najjar. ACM Transactions on Embedded Computing Systems (TECS), Vol. 4, Issue 2, May 2005, pp. 363-387.

Applications and Experiments with eBlocks -- Electronic Blocks for Basic Sensor-Based Systems. S. Cotterell, K. Downey, and F. Vahid. IEEE Sensor and Ad Hoc Communications and Networks (SECON), Oct 2004.

Dynamic FPGA Routing for Just-in-Time FPGA Compilation. R. Lysecky, F. Vahid, and S. Tan. Design Automation Conference (DAC), June 2004, pp. 954-959

Professional Societies

IEEE, ACM

Honors and Awards

Bronze Tablet (top 3% of graduating engineers), University of Illinois, 1988; Chancellor's Fellow, UC Irvine, 1988 – 1989; Research Initiation Award, NSF, 1991; Best Paper Nomination, DAC 1992; SRC Graduate Fellow, 1990 – 1994; Best Paper Nomination, EuroDAC, 1994 Regents Faculty Fellowship, 1996 and 1998; Design Automation Conference Scholarship Award, 1996 and 1998; Outstanding Teacher Award, UCR College of Engineering, 1998 NSF Career Award, 1999; Best Paper Award, IEEE Transactions on VLSI, 2000; Best Paper Award, Design Automation and Test in Europe (DATE) conference, 2000; Best Paper Award, Workshop on Compilers and Operating Systems for Low Poser (COLP), 2001; Distinguished Teaching Award, UCR College of Engineering, 2004; Paper selected for "Best Architecture Papers of the Year" special issue of IEEE Trans. on Computers, 2005

Service

Developed textbook on Digital Design, John Wiley and Sons, 2005: emphasizes retention of students in CS/engineering; Developed undergraduate textbook with modern approach to embedded system design-- Embedded Systems Design: A Unified Hardware/Software Introduction, co-authored by Tony Givargis, published by John Wiley and Sons, 2001.

Served as UCR CS&E Undergraduate advisor 1996-2001. Served as CS&E Instruction Committee founding chair 2002-2004, member 2004-present.

Helped establish UCR’s Computer Engineering program and define CE courses, 1994-2000.

Serving on UCR’s Undergraduate Council, 2003-present. Participated in the 10-campus UC committee on undergraduate admissions and relations with schools, 2005.

Titus Winters
PhD Candidate/Lecturer

Degrees

Degree, field, institution, date (Ph.D. first/most recent to oldest)
UC Riverside - Ph.D. in Computer Science Candidate – Completion: May 2006
UC Riverside – M.S. in Computer Science – May 2004
Harvey Mudd College – B.S. with Distinction, Honors in Computer Science – May 2002

Other Professional Experience

Associate Member of Technical Staff (May 2000 - December 2002)
Research and support tasks for the Trusted Systems Laboratory in the Aerospace Corporation including security evaluation of commercial products, development of host-level security systems, and custom-kernel routers for exotic network security paradigms.

CS Department Student Staff (November 1999 - May 2002)
General system administration / maintenance on the HMC CS Department cluster, including working with Apache, Sendmail, X11R6, and various scripting tasks.

Publications

• Winters, T., Payne, T. (2006). Computer Aided Grading with Agar. FECS 2006.
• Winters, T., Payne, T. (2006). Closing the Loop on Test Creation: A Question Assessment Mechanism for Instructors. ACM SIGCSE Symposium 2006, Houston, Texas.
• Winters, T. et. al. (2006) TinkerNet: A Low-Cost and Ready-to-Deploy Networking Laboratory Platform. Eighth Australasian Computing Education Conference (ACE2006), Hobart, Tasmania, Australia.
• Winters, T., Payne, T. (2005) What Do Students Know: An Outcomes-Based Assessment System. First International Computing Education Research Workshop (ICER 05), Seattle, Washington.
• Winters, T., Shelton, C., Payne, T., Mei, G. (2005) Topic Extraction from Item-Level Grades. AAAI-05 Workshop: Educational Data Mining.
• Winters, T. Analysis, Design, Development, and Deployment of a Generalized Framework for Computer-Aided Assessment. Masters Thesis, Department of Computer Science, University of California, Riverside, June 2004.
• Erlinger, M., Molle, M., Winters, T., Lundberg, C., Shea, R. (2004). TinkerNet: A Low-Cost Networking Laboratory. ACE2004, Dunedin, New Zealand.

Professional Societies

Association for Computing Machinery (ACM)
ACM Special Interest Group for Computer Science Education (SIGCSE)
International Artificial Intelligence in Education Society
USENIX
Sigma-Xi

Honors and Awards
UCR CS&E Department Outstanding Teaching Assistant Award 2003
HMC CS Class of ’94 Award for Outstanding Course Work, Research, and Service. 2002
Harvey Mudd College CS Department Honors 2002
ACM ICPC Southern California Regional - 4th Place 2001
Harvey Mudd College Computer Science Clinic Award 2000
Dean’s List, Harvey Mudd College (Fall 1999, Spring 1999, Fall 2000, Spring 2001)
National Merit Scholar 1998

Service
• UCR CE Freshman Programming Seminar & Contest ’05 - Organized an introductory programming
seminar and contest for incoming Computer Engineering majors using Jython.
• Riverside Unified School District Science Fair Judge, 2005.
• UCR CS ACM Programming Contest Coach - Fall 2004 - Present. Organizer and coach for UCR’s teams for the International Collegiate Programming Contest. Information available at http://www.cs.ucr.edu/~titus/acmProblems/
• UCR CS Technical Seminar Series - Organizer and one of the prime presenters at the Technical Seminar Series. Information can be found at http://www.cs.ucr.edu/~titus/techsem.
html
• College of Engineering Accreditation Committee - Summer 2003 - Present. Served as a Computer
Science representative on the college committee on accreditation.

Jun Yang
Assistant Professor

Degrees

Ph.D., Computer Science, University of Arizona, 2002
M.S., Computer Science, University of Pittsburgh, 1999
M.S., Mathematical Sciences, Worcester Polytechnic Institute, 1997
B.S., Computer Science, Nanjing University, 1995

University of California, Riverside, Service

Assistant Professor, II, 10/1/2002
Assistant Professor, III, 7/1/2004

Publications

Shi, W.; Fryman, J.B.; Gu, G.; Lee, H.-H.S.; Zhang, Y.; and Yang, J. (2006) ìInfoShield: A Security Architecture for Protecting Information Usage in Memory. To appear, *the 12th International Symposium on High-Performance Computer Architecture,* Austin, TX, February.

Liu, P.; Qi, Z.; Li, H.; Jin, L.; Wu, W.; Tan, S.X.-D.; and Yang, J. (2005) Fast Thermal Simulation for Architecture Level Dynamic Thermal Management. *International Conference on Computer-Aided Design,* San Jose, November.

Luo, Y.; Yu, J.; Yang, J.; and Bhuyan, L. (2005) ìLow Power Network Processor Design Using Clock Gating. *The 42nd Design Automation Conference,* June.

Zhang, Y.; Gao, L.; Yang, J.; Zhang, X.; and Gupta, R. (2005) SENSS: Security Enhancement to Symmetric Shared Memory Multiprocessors. *11th International Symposium on High-Performance Computer Architecture,* pp. 352-362, February.

Yang, J.; Gao, L.; and Zhang, Y. (2005) Improving Memory Encryption Performance in Secure Processors, *IEEE Transactions on Computers,* pp. 630-640, Vol. 54, No. 5, May.

Luo, Y.; Yang, J.; Bhuyan, L.; and Zhao, L. (2004) NePSim: A Network Processor Simulator with Power Evaluation Framework, *IEEE Micro Magzine,* special issue on network processors for future high-end systems and applications, September-October.

Yang, J.; Zhang, Y.; and Gao, L. (2003) Fast Secure Processor for Inhibiting Software Piracy and Tampering, *ACM/IEEE 36th International Symposium on Microarchitecture*, pages 351-360, December.

Suresh, D.; Agrawal, B.; Yang, J.; Najjar, W.; and Bhuyan, L. (2003) Power Efficient Encoding Techniques for Off-chip Data Buses. *2003 International Conference on Compilers, Architecture and Synthesis for Embedded Systems,* pp. 267–275, October.

Yang, J., and Gupta, R. (2002) Energy Efficient Frequent Value Data Cache Design. *ACM/IEEE 35th International Symposium on Microarchitecture*, pages 97–107, Istanbul, Turkey, November.

Yang, J.; Zhang, Y.; and Gupta, R. (2000) Frequent Value Compression in Data Caches," *ACM/IEEE 33rd International Symposium on Microarchitecture*, pages 258–265, Monterey, CA, December.

Professional Societies

ACM, ACM SIGARCH, IEEE

Honors and awards

- MICRO-35 NSF Travel Grant, November 2002
- Regents' Faculty Fellowship/Faculty Development Award, UCR, September 2003 - June 2004
- Academic Senate Research Funds, July 2003 - June 2004
- National Science Foundation, November 2004 - October 2006

Service

- **Technical Program Committee Member**
  1. ACM SIGPLAN/SIGBED 2005 Conference on Languages, Compilers, and Tools for Embedded Systems (LCTES'05) , June 2005
  2. 10th International Conference on High Performance Computing (HiPC), Hyderabad, India, December 2003.

- **Reviewer for Conferences/Journals**
  MICRO 2001-04, HiPC 2003-2005, CASES'03, ISSS-CODES'03, IEEE TC 1999-2005, ACM
  TODAES 2001-03, IEEE TVLSI'02, PLDI'02.

Neal Young
Associate Professor

Degrees

Ph.D., Computer Science, Princeton University, Princeton, NJ, 1991
B.A., Computer Science, Mathematics, Cornell University, Ithaca, NY, 1986

University of California, Riverside, Service

Associate Professor, II (OS), 7/1/2003
Associate Professor, III (OS), 7/1/2005

Other Professional Experience

9/1999-12/2004: Senior Research Scientist, Senior Network Architect, Akamai Technologies
9/1995-3/2001: Assistant Professor, Computer Science, Dartmouth
9/1994-9/1995: Postdoc, AT&T Bell Labs
1/1994-8/1994: Postdoc, Operations Research and Industrial Engineering, Cornell
9/1993-1/1994: Instructor, Computer Science, Princeton
9/1991-8/1993: Postdoc, UMIACS, University of Maryland
12/1991-1/1992: Visitor, Indian Institute of Technology, New Delhi, India
Summer 1988: Research Intern, DEC (now HP) Systems Research Center, Palo Alto, California
Summers 1985-1987: Instructor, Center for Talented Youth, Johns Hopkins
Summers 1984-1985: Programmer, Robotics Project, Computer Science, Cornell University
1/1983-8/1983: Programmer, Cornell Programming Environment Project, Computer Science, Cornell University
9/1981-9/1982: Programmer, Wintek Corporation, Lafayette, Indiana

Consulting and Patents

1/2004-12/2004: Consultant, Akamai Technologies
9/1993-1/1997: Consultant, Astrophysics Department, Princeton and Fermilabs, Chicago
1991: Method for implementing approximate data structures using operations on machine words. United States patent 5,519,840, Bell Laboratories, with Yossi Matias and Jeff Vitter

Publications

The reverse greedy algorithm for the metric k-median problem

Information Processing Letters 97:68-72(2006); The Computing and Combinatorics Conference (2006) (COCOON) 2005, with Marek Chrobak and Claire Kenyon

Oblivious medians via online bidding

Lecture Notes in Computer Science 3887: 311-322(2006); Latin American Theoretical Informatics (2006), with Marek Chrobak, Claire Kenyon and John Noga

Approximation algorithms for covering/packing integer programs

Journal of Computer and System Sciences 71(4):495-505(2005); FOCS'01
with Stavros Kolliopoulos

Rounding algorithms for a geometric embedding of minimum multiway cut

Mathematics of Operations Research 29(3):0436-0461(2004); STOC'99
with David Karger, Phil Klein, Cliff Stein and Mikkel Thorup

An efficient targeting strategy for multiobject spectrograph surveys: the Sloan Digital Sky Survey "tiling" algorithm

The Astronomical Journal 125:2276-2286(2003)
with Michael R. Blanton, Huan Lin, Robert Lupton and Miller Maley

On-line, end-to-end congestion control

IEEE Symposium on Foundations of Computer Science (2002), with Naveen Garg

Huffman coding with unequal letter costs

ACM Symposium on Theory of Computing (2002), with Mordecai Golin and Claire Kenyon

On-line file caching

Algorithmica 33(3):371-383(2002); SODA'98

Sequential and parallel algorithms for mixed packing and covering

IEEE Symposium on Foundations of Computer Science (2001)

Professional Societies
ACM SIGACT

Honors and awards
Hertz Fellow 1986 – 1991; NSF Career Award 1998 - 1999

Service
UCR Committee on Courses: 2005-present; UCR Committee on General Educ.: 2006-present

Program Committees: 2006 ACM-SIAM Symposium on Discrete Algorithms (SODA); 2004 Approximation Algorithms for Combinatorial Optimization Problems (APPROX); 2004 Randomization and Computation (RANDOM).

Refereeing: ACM J. Experimental Algorithmics, Algorithmica, Cambridge Univ. Press, Discrete Applied Mathematics, Information and Computation, Information Sciences, Information Processing Letters, J. Algorithms, Mathematical Programming, Mathematica Slovaca, Mathematics of Operations Research, National Science Foundation (CISE), Networks, Operations Research, SIAM J. Optimization, SIAM J. Computing, SIAM J. Discrete Mathematics, ACM Symp. on Theory of Comput., ACM-SIAM Symp. on Discrete Algorithms, International Colloq. on Automata, Languages, and Programming, IEEE Symp. on Foundations of Comp. Sci.

Victor Zordan
Assistant Professor

Degrees

Ph.D., Computer Science, Georgia Institute of Technology, 2002
B.S., Mechanical Engineering, Boston University, 1992

University of California, Riverside, Service

Assistant Professor, II, 7/1/2002
Assistant Professor, III, 7/1/2004

Other Professional Experience

1994-2002. Georgia Institute of Technology. Graduate Research Assistant, College of Computing (1995-2002). Graduate Research Assistant, School of Mechanical Engineering (1994-1995).

1993-1994. Shadyside Academy, Pittsburgh, PA. High school teacher, computer programming.

1992-1993. Torrington Co., Torrington, CT. Mechanical Engineering, Product Design Engineer.

Publications

Zordan, V.B.; Majkowska, A.; Chiu, B.; Fast, M. (2005) Dynamic Response for Motion Capture Animation , ACM SIGGRAPH 2005. Available at: http://graphics.cs.ucr.edu/papers/zordan:2005:DRM.pdf.

Pollard, N.S.; Zordan, V.B. (2005) Physically Based Grasping Control from Example. ACM SIGGRAPH/ Eurographics Symposium on Computer Animation, 2005. Available at: http://graphics.cs.ucr.edu/papers/pollard:2005:PBG.pdf.

Zordan, V.B.; Celly, B.; Chiu, B.; Dilorenzo, P.C. (2004) Breath Easy: Model and Control of Human Respiration for Computer Animation ACM SIGGRAPH/Eurographics Symposium on Computer Animation, 2004 (29-38). Available at: http://www.cs.ucr.edu/rgl/papers/zordan:2004:BEM.pdf.

Keogh, E.; Palpanas, T.; Zordan, V.; Gunopulos, D.; and Cardle, M. (2004) Indexing Large Human-Motion Databases. In *Proceedings of the 30th International Conference on Very Large Data Bases*, Toronto, Canada. Available at: http://www.cs.ucr.edu/rgl/papers/vldb04.pdf.

Celly, B.; Zordan, V.B. (2004) Animated People Textures, 17th International Conference on Computer Animation and Social Agents (CASA) 2004, Geneva, Switzerland. Available at: http://www.cs.ucr.edu/rgl/papers/people_texture.pdf.

Keogh, E.; Celly, B.; Ratanamahatana, C.A.; and Zordan, V. (2003) A Novel Technique for Indexing Video Surveillance Data. ACM SIGMM 2003 Workshop on Video Surveillance, in conjunction with eleventh ACM International Conference on Multimedia, 2003. Available at: http://www.cs.ucr.edu/rgl/papers/IWVS03_Keogh.pdf.

Zordan, V.B. (2003) Van Der Horst, N. C., Mapping Optical Motion Capture Data to Skeletal Motion using a Physical Model ACM SIGGRAPH Symposium on Computer Animation pg. 140-145. Available at: http://www.cs.ucr.edu/rgl/papers /zordan:2003:MOM.pdf.

Hodgins J.K.; O'Brien, J.F.; Pollard, N.S.; Sumner, R.W.; Wooten, W.L.; Yngve, G.D.; Zordan V.B. (2005) Creating Realistic Motion, Motion Picture Theory: Ecological Considerations.

Honors and awards

- National Science Foundation - Summer Program in Japan '96
- Paper Reviewer 2000 - 2005 (Various IEEE, ACM, Eurographics)
- Invited Lecturer 2002 - 2005 (Sony, UC Berkeley, Harvey Mudd College)
- Paper Review 2002 - 2005 (Siggraph)

Service

Formed and directed volunteer-based, focus group of undergraduate and graduate students interested in the discovery and creation of computer imagery, animation and interactive graphical applications. Leading eager and enthusiastic students in the structured setting of our meeting and independently based on directions stemming from our discussions. Through synergistic exchange, disseminate and gather information as we explore together the ever-changing areas of computer animation, electronic games, and cyber culture (2003).

Directed an animation production based on computer science students and visiting artists; lead weekly group sessions (evening hackfests) of volunteers organized to aid in the development and distribution of software tools for animation; orchestrated the contributions and efforts of over twenty individuals into a single animated production (1997-1998).

Professional Development

Awarded National Science Foundation Summer in Japan '96, collaborated with Japanese researchers at the Advance Telecommunications Research (ATR) laboratories and visited robotics laboratories and academic groups across Japan to share ideas and research results (1996).