

## Curriculum Vitae - Chun-Hsi Huang

October 2, 2009

*Computer Science and Engineering Department*  
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### EDUCATION

- |           |   |
|-----------|---|
| 1996-2001 | Ph.D. in Computer Science and Engineering<br>State University of New York at Buffalo, Buffalo, NY, USA<br>Dissertation: <i>Communication-Efficient Bulk Synchronous Parallel Algorithms</i><br>(Committee: Profs. Xin He (Chair), Russ Miller and Ashim Garg) |
| 1992-1994 | M.S. in Computer Science<br>University of Southern California, Los Angeles, CA, USA   |
| 1985-1989 | B.S. in Computer and Information Science<br>National Chiao-Tung University, Hsinchu, Taiwan   |

### ACADEMIC EMPLOYMENT

- |                  |   |
|------------------|---|
| Aug 07 - present | Associate Professor (tenured)<br>Department of Computer Science and Engineering<br>University of Connecticut, Storrs, CT, USA   |
| Aug 01 - Aug 07  | Assistant Professor<br>Department of Computer Science and Engineering<br>University of Connecticut, Storrs, CT, USA   |
| Aug 96 - June 01 | Lecturer (98-00), Teaching Assistant (96-00), Research Assistant (00-01)<br>Department of Computer Science and Engineering<br>State University of New York at Buffalo, Buffalo, NY, USA |

### RESEARCH AREAS

High-Performance Computing, Cyber-Infrastructure, Life-Science Informatics, Computational Biology, Algorithm Design and Analysis, Experimental Algorithmics.

### PROFESSIONAL AFFILIATIONS

- Member of ISCB (International Society of Computational Biology)
- Member of IEEE (Institute of Electrical and Electronics Engineers)
- Member of ACM (Association for Computing Machinery)

**SCHOLARLY PUBLICATIONS****Journals - Published**

1. Chun-Hsi Huang, “*Bioethics in a Health-Grid*”, Journal of Long-Term Effects of Medical Implants, Vol 18, Issue 1, 2009, p.37.
2. Chih Lee, Ali Abdool and Chun-Hsi Huang, “*PCA-based Population Structure Inference with Generic Clustering Algorithms*”, BMC Bioinformatics, Vol 10, Suppl 1, S73 (13 pages), 2009. (PMID: 19208178)
3. Chun-Hsi Huang and Vincenzo Lanza, “*HealthGrid: Towards Collaborative and On-Demand Health-care*”, Journal of Clinical Monitoring and Computing, Vol 22, No 3, 2008, pp. 226-228.
4. C.-H. Huang, A. Konagaya, V. Lanza and P. Sloot, “*Biomedical Computations on the Grid*”, IEEE Tran. on Info. Technology in Biomedicine, Vol 12, No 2, 2008, pp. 133-137. (PMID: 18416025)
5. Longde Yin, Chun-Hsi Huang and Jun Ni, “*Clustering of Gene Expression Data: Performance and Similarity Analysis*”, BMC Bioinformatics, Vol 7, Suppl 4, S19 (11 pages), 2006. (PMID: 17217511)
6. Vincenzo Lanza and Chun-Hsi Huang, “*Advanced Course for Doctors as Departmental IT Network Administrators in Anesthesia and Intensive Care Units*”, Journal of Clinical Monitoring and Computing, Springer, Vol 20, No 5, 2006, pp. 333-339. (PMID: 16964536)
7. Chun-Hsi Huang, Sanguthevar Rajasekaran, Laurence T. Yang and Xin He, “*Finding Hamiltonian Paths in Tournaments on Clusters*”, Cluster Computing, Vol 9, No 3, 2006, pp. 345-353.
8. Chun-Hsi Huang, Xin He and Min Qian, “*Communication-Optimal Parallel Parenthesis Matching*”, Parallel Computing, Vol 32, No 1, 2006, pp. 14-23.
9. S. Balla, V. Thapar, S. Verma, T. Luong, T. Faghri, C.-H. Huang, S. Rajasekaran, J.J. del Campo, J.H. Shinn, W.A. Mohler, M.W. Maciejewski, M.R. Gryk, B. Piccirillo, S.R. Schiller and M.R. Schiller, “*Minimotif Miner: A Tool for Investigating Protein Function*”, Nature Methods, Vol 3, No 3, 2006, pp. 175-177. Short notes also appear as “*Matchmaker*” in *Netwatch* section, Science, Vol 311, 2006, p. 925; and as “*Minimotif Miner*” in *Toolbox* section, Journal of Proteome Research, Vol 15, Issue 4, 2006, pp. 736-737. (PMID: 16489333)
10. S. Rajasekaran, V. Thapar, H. Dave and C.-H. Huang, “*Randomized and Parallel Algorithms for Distance Matrix Calculations in Multiple Sequence Alignment*”, Journal of Clinical Monitoring and Computing, Springer, Vol 19, No 4-5, 2005, pp. 351-359. (PMID: 16328949)
11. S. Rajasekaran, S. Balla, C.-H. Huang, V. Thapar, M. Gryk, M. Maciejewski and M. Schiller, “*High-Performance Exact Algorithms for Motif Search*”, Journal of Clinical Monitoring and Computing, Springer, Vol 19, No 4-5, 2005, pp. 319-328. (PMID: 16328946)
12. C.-H. Huang, V. Lanza, S. Rajasekaran and W. Dubitzky, “*HealthGrid - Bridging Life Science and Information Technology*”, Journal of Clinical Monitoring and Computing, Springer, Vol 19, No 4-5, 2005, pp. 259-262. (PMID: 16328941)
13. S. Rajasekaran, S. Balla and C.-H. Huang, “*Exact Algorithms for Planted Motif Problems*”, Journal of Computational Biology, Vol 12, No 8, 2005, pp. 1115-1126. (PMID: 16241901)

14. Chain-Wu Lee and Chun-Hsi Huang, “*Toward Cooperative Genomic Knowledge Inference*”, *Parallel Computing*, Vol 30, No 9-10, 2004, pp. 1127-1135.
15. Chun-Hsi Huang and Sanguthevar Rajasekaran, “*High-Performance Parallel Bio-computing*”, *Parallel Computing*, Vol 30, No 9-10, 2004, pp. 999-1000.
16. Chain-Wu Lee, Chun-Hsi Huang, Laurence T. Yang and Sanguthevar Rajasekaran, “*Distributed Path-Based Inference in Semantic Networks*”, *Journal of Supercomputing*, Vol 27, No 2, 2004, pp. 211-227.
17. C.-H. Huang and S. Rajasekaran, “*Parallel Pattern Identification in Biological Sequences on Clusters*”, *IEEE Transactions on NanoBioscience*, Vol 2, No 1, 2003, pp. 29-34. (PMID: 15382420)
18. Zhi-Zhong Chen, Xin He and Chun-Hsi Huang, “*Finding Double Euler Trails of Planar Graphs in Linear Time*”, *SIAM Journal on Computing*, Vol 31, No 4, 2002, pp. 1255-1285.
19. Xin He and Chun-Hsi Huang, “*Communication-Efficient BSP Algorithm for All Nearest Smaller Values Problem*”, *Journal of Parallel and Distributed Computing*, Vol 61, 2001, pp. 1425-1438.

#### Conference Proceedings - Published

1. Chih Lee, Ali Abdool and Chun-Hsi Huang, “*PCA-based Population Structure Inference with Generic Clustering Algorithms*”, in Proc. of the 7-th Asia Pacific Bioinformatics Conference (APBC), 761-771, Jan 13-16, 2009, Beijing, China.
2. Vincenzo Lanza, Maura Ignazia Cascio and Chun-Hsi Huang, “*Towards an e-Learning and Telemedicine Network for Better Quality of Patient Care*”, in Proc. of the 4-th European Congress of the International Federation for Medical and Biological Engineering (MBEC), Vol 22 (Part 8), 986-993, Nov. 23-27, 2008, Antwerp, Belgium.
3. Vincenzo Lanza, Maura Ignazia Cascio and Chun-Hsi Huang, “*Towards On-Demand Biomedical Knowledge Extraction*”, in Proc. of the 2008 International Conference on Health Informatics (Health-Inf), 102-109, Jan. 28-31, 2008, Funchal, Madeira-Portugal.
4. Chun-Hsi Huang and Vincenzo Lanza, “*Health-Grid: Towards Collaborative and On-Demand Healthcare*”, in Proc. of the 2007 Annual Meeting of the Society for Computing and Technology in Anaesthesia (SCATA), 10-11, Nov. 21-23, 2007, the Royal College of Anaesthetists, London, UK.
5. Chun-Hsi Huang, “*Latency Reduction in Clinical and Translational Research*”, in Proc. of the 21-st International Symp. on Critical Care Medicine, 437-446, Nov. 10-13, 2006, Venice-Mestre, Italy.
6. Chun-Hsi Huang, “*Grid-Enabling the UMLS*”, in Proceedings of the 2006 American Medical Informatics Association Spring Congress, May 16-18, Phoenix, AZ. (CD-ROM)
7. Thomas Puzak and Chun-Hsi Huang, “*An Analysis of the Effects of Spatial Locality on the Cache Performance of Binary Search Trees*”, in Proceedings of the International Conference on Software and Data Technologies (ICS<sub>o</sub>ft), Vol 2, 94-101, Sep. 11-14, 2006, Setubal, Portugal.
8. Longde Yin and Chun-Hsi Huang, “*Clustering of Gene Expression Data: Performance and Similarity Analysis*”, in Proceedings of the IEEE Symposium of Computations in Bioinformatics and Bioscience (SCBB), 142-149, June 22-26, 2006, Hangzhou, China.
9. Longde Yin and Chun-Hsi Huang, “*A Heuristic Approach to Scoring Gene Clustering Algorithms*”, in Proceedings of the International Conference on Bioinformatics and Computational Biology (Bio-Comp), 135-141, June 26-29, 2006, Las Vegas, NV.

10. Chun-Hsi Huang, “*BioGrid: A Collaborative Environment for Life Science Research*”, in Proceedings of the 20-th International Symposium on Critical Care Medicine, 123-132, Nov. 18-21, 2005, Trieste, Italy. (invited)
11. Chun-Hsi Huang and Sanguthevar Rajasekaran, “*BioGrid - Bridging Life Science and Information Technology*”, in Proceedings of the 5-th IEEE/ACM International Symposium on Cluster Computing and the Grid (*IEEE/ACM CCGrid*)(*BioGrid Workshop*), 450-454, May 9-12, 2005, Cardiff, UK.
12. S. Rajasekaran, S. Balla, C.-H. Huang, V. Thapar, M. Gryk, M. Maciejewski and M. Schiller, “*Exact Algorithms for Motif Search*”, in Proceedings of the 3-rd Asia-Pacific Bioinformatics Conference (*APBC*), 239-248, Jan. 17-21, 2005, Singapore.
13. S. Rajasekaran, S. Balla and C.-H. Huang, “*Exact Algorithms for Planted Motif Challenge Problems*”, in Proceedings of the 3-rd Asia-Pacific Bioinformatics Conference (*APBC*), 249-259, Jan. 17-31, 2005, Singapore.
14. S. Rajasekaran, V. Thapar, H. Dave and C.-H. Huang, “*A Randomized Algorithm for Distance Matrix Calculations in Multiple Sequence Alignment*”, in Proceedings of the First Conference on Knowledge Exploration in Life Science Informatics (*KELSI*), LNAI 3303:33-45, Springer-Verlag, Nov. 25-26, 2004, Milano, Italy.
15. Chun-Hsi Huang and Sanguthevar Rajasekaran, “*Biomedical Computations on the Grid*”, in Proceedings of the 4-th IEEE/ACM International Symposium on Cluster Computing and the Grid (*IEEE/ACM CCGrid*) (*BioGrid Workshop*), Apr. 19-22, 2004, Chicago, IL. (CD-ROM)
16. Chain-Wu Lee, Chun-Hsi Huang, Sanguthevar Rajasekaran, Laurence T. Yang and D. Frank Hsu, “*Distributed Path-Based Inference in Semantic Networks*”, in Proceedings of the 7-th IEEE International Symposium on Parallel Architectures, Algorithms, and Networks (*I-SPAN*), 232-237, May 10-12, 2004, Hong Kong, China.
17. Chain-Wu Lee, Chun-Hsi Huang and Sanguthevar Rajasekaran, “*TROJAN: A Scalable Distributed Semantic Network System*”, in Proceedings of 15-th IEEE International Conference on Tools with Artificial Intelligence (*ICTAI*), 219-223, Nov. 3-5, 2003, Sacramento, CA.
18. Chun-Hsi Huang and Xin He, “*Average-Case Communication-Optimal Parallel Parenthesis Matching*”, in Proceedings of the 13-th International Symposium on Algorithms and Computation (*ISAAC*), LNCS 2518:308-319, Springer-Verlag, Nov. 20-23, 2002, Vancouver, Canada.
19. Chun-Hsi Huang, “*Parallel Pattern Identification in Biological Sequences on Clusters*”, in Proceedings of the 4-th IEEE International Conference on Cluster Computing (*IEEE Cluster*), 127-134, Sep. 24-26, 2002, Chicago, IL.
20. Chun-Hsi Huang, “*Grid-Enabled Parallel Divide-And-Conquer - Theory and Practice*”, in Proceedings of the 17-th ACM SIGAPP Symposium on Applied Computing (*SAC*), 865-869, Mar. 10-14, 2002, Madrid, Spain.
21. Chun-Hsi Huang and Xin He, “*Parallel Range Searching in Large Databases Based on General Parallel Prefix Computation*”, in Proceedings of the 10-th SIAM Conference on Parallel Processing for Scientific Computing, Mar. 12-14, 2001, Portsmouth, VA. (CD-ROM)

22. Chun-Hsi Huang and Xin He, “*Communication-Efficient Bulk Synchronous Parallel Algorithm for Parentheses Matching*”, in Proceedings of the 10-th SIAM Conference on Parallel Processing for Scientific Computing, Mar. 12-14, 2001, Portsmouth, VA. (CD-ROM)
23. Chun-Hsi Huang and Xin He, “*Finding Hamiltonian Paths in Tournaments on Clusters – A Provably Communication-Efficient Approach*”, in Proceedings of the 16-th ACM SIGAPP Symposium on Applied Computing (SAC), 549-553, Mar. 11-14, 2001, Las Vegas, NV.
24. Xin He and Chun-Hsi Huang, “*Scalable Coarse Grained Parallel Interval Graph Algorithms*”, in Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA), 1369-1376, June 26-29, 2000, Las Vegas, NV.
25. Chun-Hsi Huang and Xin He, “*Communication-Efficient Coarse-Grained Parallel Algorithm for All Nearest Smaller Values Problem and its Applications*”, in Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA), 1377-1384, June 26-29, 2000, Las Vegas, NV.
26. Zhi-Zhong Chen, Xin He and Chun-Hsi Huang, “*Finding Double Euler Trails of Planar Graphs in Linear Time*”, in Proceedings of the 40-th IEEE Symposium on Foundations of Computer Science (FOCS), 319-329, Oct. 17-19, 1999, New York City.

#### Conference Proceedings - Abstract Refereed and Published

1. B. Vaziri and C.-H. Huang, “*Semantic Integration in Biomedical Networks*”, ISCB Conference on Semantics in Healthcare and Life Sciences (C-SHALS), Feb. 25-27, 2009, Boston, MA.
2. Carl Bergenheim, Chih Lee and Chun-Hsi Huang, “*On the Cache-Awareness in DNA Probe Selection*”, in Proceedings of the 2008 Rocky Mountain Bioinformatics Conference, 16-17, Dec. 4-7, 2008, Aspen/Snowmass, CO.
3. Vincenzo Lanza and Chun-Hsi Huang, “*Cyber-infrastructure for Biomedical Computing and Learning*”, in Proceedings of the 15-th International Conference on Intelligent Systems for Molecular Biology (ISMB), July 21-25, 2007, Vienna, Austria.
4. Min Qian and Chun-Hsi Huang, “*Parallel Algorithms for Finding Short Approximate non-Tandem Repeats*”, in Proceedings of the 13-th International Conference on Intelligent Systems for Molecular Biology (ISMB), June 25-29, 2005, Detroit, MI.
5. Chun-Hsi Huang, “*Toward A Distributed UMLS*”, in Proceedings of the 2-nd Biological Language Conference (BLC), 77-78, Nov. 18-19, 2004, Carnegie Mellon University, Pittsburgh, PA.
6. Chun-Hsi Huang, Sanguthevar Rajasekaran and Longde Yin, “*Distributed Clinical Knowledge Inference*”, in Poster Book of the 8-th International Conference on Research in Computational Molecular Biology (RECOMB), 556-557, Mar. 27-31, 2004, San Diego, CA.
7. Longde Yin, Chun-Hsi Huang and Sanguthevar Rajasekaran, “*Parallel Data Mining of Bayesian Networks from Gene Expression Data*”, in Poster Book of the 8-th International Conference on Research in Computational Molecular Biology (RECOMB), 122-123, Mar. 27-31, 2004, San Diego, CA.

#### Technical Reports

1. Chun-Hsi Huang, “*CRI: Computing Infrastructure for the UConn Health-Grid Initiatives*”, in Proceedings of the 2006 NSF CISE CRI-PI's Workshop, 172-176, June 23-25, 2006, Snowbird, Utah.

2. Chun-Hsi Huang, “*Communication-Efficient Bulk Synchronous Parallel Algorithms*”, Ph.D. Dissertation, Department of Computer Science and Engineering at SUNY Buffalo, Technical Report 2001-06.

## RESEARCH FUNDING

### Current Externally Funded Projects

1. **Title:** *Bio-Grid Initiatives for Interdisciplinary Research and Education* (CCF-0755373)  
**Source:** National Science Foundation (CISE-CCF: REU Site)  
**Amount & Period:** \$285,000 (March 1, 2008 - Feb. 28, 2011)  
**Role:** Principal Investigator
2. **Title:** *Building Motif Lexicons* (R01-GM079689-01A1)  
**Source:** National Institutes of Health (NIGM/NLM)  
**Amount & Period:** \$1.1M (May 01, 2007 - Apr. 30, 2011)  
**Role:** co-Investigator (PI: M. Schiller (UCHC), other Investigators: S. Rajasekaran (UConn), M. Gryk (UCHC) and M. Maciejewski (UCHC))
3. **Title:** *Workshop on Biomedical Computations on the Grid* (R13-LM008619)  
**Source:** National Institutes of Health (National Library of Medicine)  
**Amount & Period:** \$100,000 (Jan. 15, 2005 - Jan. 14, 2010)  
**Role:** Principal Investigator (co-Investigator: S. Rajasekaran)

### Completed Externally Funded Projects

1. **Title:** *Computing Infrastructure for the UConn Health-Grid Initiatives* (CNS-0551549)  
**Source:** National Science Foundation (CISE-CNS: CRI)  
**Amount & Period:** \$62,000 (March 1, 2006 - Feb. 28, 2009 (no-cost extension from 2/28/08))  
**Role:** Principal Investigator
2. **Title:** *Information Extraction from Massive Data Sets* (ITR-0326155)  
**Source:** National Science Foundation (CISE-IIS: ITR-Medium)  
**Amount & Period:** \$1.2M (Aug. 31, 2003 - Aug. 30, 2008)  
**Role:** Senior Personnel (PI: S. Rajasekaran, co-PIs: S. Sahni (U. Florida), T. Cormen (Dartmouth) and P. Pardalos (U. Florida))

### Completed Internally Funded Projects

1. **Title:** *Graph Algorithms on Coarse Grained Parallel Computers*  
**Source:** UConn Research Foundation (Faculty Large Grant)  
**Amount & Period:** \$20,837 (June 02 - Dec. 04)  
**Role:** Principal Investigator
2. **Title:** *Efficient Parallel Pattern Identification in Biological Sequences*  
**Source:** Deanery, UConn School of Engineering (IT Grant, GE Source)  
**Amount & Period:** \$8,629 (Jan. 02 - May 02)  
**Role:** Principal Investigator

## PROFESSIONAL SERVICE

### Invited Speeches

1. Talk Title: *High-Performance Computing in Network Biology*  
9-th Emerging Information and Technology Conference (*EITC 09*), Bioinformatics Track  
Massachusetts Institute of Technology, Aug. 6-7, 2009.
2. Talk Title: *Towards an e-Learning and Telemedicine Network for Better Quality of Patient Care*  
International Year of Science and Technology for Africa: *The Role of Telemedicine Against Diseases and in Health Promotion*, International Institute of Tele-medicine, Rome, Italy, Nov. 30, 2007.
3. Talk Title: *Health-Grid: Towards Collaborative and On-Demand Healthcare*  
2007 Annual Meeting of the Society for Computing and Technology in Anaesthesia (*SCATA*), Royal College of Anaesthetists, London, UK, Nov. 21-23, 2007.
4. Talk Title: *Advances on Health-Grid*  
International Symposium on Critical Care Medicine, Venice-Mestre, Italy, Nov. 10-13, 2006.
5. Talk Title: *Health-Grid*  
20-th Annual APICE (Anesthesia, Pain, Intensive Care and Emergency Medicine) Seminar, School of Critical Care Medicine, University of Trieste, Trieste, Italy, Nov. 18-21, 2005.
6. Talk Title: *Grid-Enabled Approaches for Biomedical Applications*  
Yale University High Performance Computing Symposium, Apr. 29-30, 2004.

### Professional Associations

- Executive Committee Member, IEEE Technical Committee on Scalable Computing, 2006-present.

### Editorial Service

- Serving on Editorial Board
  - Biomedical Informatics Insights, *Libertas Academica*, 2007-present.
- Serving as Guest Editor
  - IEEE Transactions on Information Technology in Biomedicine, 2007.
  - Journal of Clinical Monitoring and Computing, 2005.
  - Parallel Computing, 2004.

### Conference Service

- Serving as General Chair:
  - **Workshop on Biomedical Computations on the Grid (*BioGrid*)**, jointly held with the Health-Grid Conference (2008), the IEEE/ACM Symposium on Cluster Computing and the Grid (*CC-Grid*, 2003-2007).
    - \* (6-th), June 2, 2008, Chicago, IL.
    - \* (5-th), May 17, 2007, Rio de Janeiro, Brazil.
    - \* (4-th), May 18, 2006, Singapore.
    - \* (3-rd), May 10, 2005, Cardiff, UK.
    - \* (2-nd), Apr. 21, 2004, Chicago, IL.
    - \* (1-st), May 14, 2003, Tokyo, Japan.

- Serving on Program Committee:
  - **Symposium on Grid and Distributed Computing (GDC)**  
(1-st), Dec. 10-12, 2009, Jeju Island, Korea.
  - **IEEE International Conference on Bioinformatics and Biomedicine (BIBM)**  
(3-rd), Washington D.C., Nov. 1-4, 2009; (2-nd), Philadelphia, PA, Nov. 3-5, 2008; (1-st), Silicon Valley, Nov. 2-4, 2007.
  - **IEEE International Conference on Computer and Information Technology (CIT)**  
(9-th), Oct. 11-14, 2009, Xiamen, China; (8-th), July 8-11, 2008, Sydney, Australia; (7-th), Oct. 16-19, 2007, Aizu, Japan; (6-th), Sep. 20-22, 2006, Seoul, Korea; (5-th), Sep. 21-23, 2005, Shanghai, China; (4-th), Sep. 14-16, 2004, Wuhan, China.
  - **International Workshop on Grid Economics and Business Models (GECON)** at the European Conference on Parallel and Distributed Computing (*Euro-Par*)  
(6-th), Delft, The Netherlands, Aug. 24, 2009; (5-th), Las Palmas, Canary Island, Spain, Aug. 25-26, 2008; (4-th), Rennes, France, Aug. 28, 2007.
  - **IEEE Symposium on Parallel and Distributed Processing with Applications (ISPA)**  
(7-th), Aug. 10-12, 2009, Chengdu, China; (3-rd), Nov. 2-5, 2005, Nanjing, China; (2-nd), Dec. 13-15, 2004, Hong Kong, China.
  - **Workshop on Challenges for the Application of Grids in Healthcare** at the 2009 IEEE Symposium on Cluster Computing and the Grid (*CCGrid*), May 18-21, 2009, Shanghai, China.
  - **International Conference on Health Informatics (HealthInf)**  
Jan. 14-17, 2009, Porto, Portugal; Jan. 28-31, 2008, Funchal, Madeira-Portugal.
  - **Health-Grid Conference (HealthGrid)**  
(6-th), June 2-4, 2008, Chicago, IL; (5-th), Apr. 24-27, 2007, Geneva, Switzerland; (4-th), June 7-9, 2006, Valencia, Spain; (3-rd), Apr. 7-9, 2005, Oxford, UK; (2-nd), Jan. 29-30, 2004, Clermont-Ferrand, France.
  - **IEEE Symposium on Cluster Computing and the Grid (CCGrid)**  
(8-th), May 19-22, 2008, Lyon, France; (7-th), May 14-17, 2007, Rio de Janeiro, Brazil.
  - **International Conference on Bioinformatics Research and Development (BIRD)**  
(2-nd), July 7-9, 2008, Vienna, Austria; (1-st), Mar. 12-14, 2007, Berlin, Germany.
  - **2008 European Congress of the International Federation for Medical and Biological Engineering (MBEC)**, Nov. 23-27, Antwerp, Belgium, 2008.
  - **International Conference on Life Science Grids (LSGrid)**  
(4-th), Sep. 6-7, 2007, University of Glasgow, Scotland; (3-rd), Oct. 13-14, 2006, Riken Genomic Science Institute, Japan.
  - **International Conference on Computational Science (ICCS)**, May 27-30, 2007, Beijing, China.
  - **Second International Workshop on Bioinformatics and Security (BIOS)** at the Second International Conference on Availability, Reliability and Security Conference (*AReS*), Vienna, Austria, Apr. 10-13, 2007.
  - **2007 IEEE International Symposium on Bioinformatics and Life Science Computing (BLSC)**, Niagara Falls, Canada, May 21-23, 2007.
  - **First Workshop on High-Performance Computing in Genomics, Proteomics and Transcriptomics (HPC-GPT)** at the International Symposium on Parallel and Distributed Processing and Applications (*ISPA*), Dec. 1-4, 2006, Sorrento, Italy.

- **IEEE Workshop on High-Performance Computing in Medicine and Biology (*HiPCoMB*)**
  - \* (2-nd), April 18-20, 2006, Vienna, Austria, held in conjunction with 20-th International Conference on Advanced Information Networking and Applications (*AINA*);
  - \* (1-st), July 20-22, 2005, Fukuoka, Japan, held in conjunction with 11-th International Conference on Parallel and Distributed Systems (*ICPADS*).
- **Workshop on High-Performance Scientific and Engineering Computing (*HPSEC*)** at the International Conference on Parallel Processing (*ICPP*)
  - (8-th), Aug. 18, 2006, Columbus, OH; (7-th), June 15, 2005, Oslo, Norway; (6-th), Aug. 15, 2004, Montreal, Canada.
- **Workshop on Parallel and Distributed Scientific and Engineering Computing with Applications (*PDSEC*)** at the International Parallel and Distributed Processing Symposium (*IPDPS*)
  - (7-th), Apr. 25-29, 2006, Rhodes Island, Greece; (6-th), Apr. 8, 2005, Denver, CO; (5-th), Apr. 30, 2004, Santa Fe, NM.
- **First Workshop on Distributed, High-Performance and Grid Computing in Computational Biology (*GCCB*)** at the 5-th European Conference on Computational Biology (*ECCB*)
  - Sep. 10-13, 2006, Eilat, Israel.
- **2006 IEEE Symposium of Computations in Bioinformatics and Bioscience (*SCBB*)**
  - June 22-26, 2006, Hangzhou, China.
- **First European Grid Conference (*EGC*)**, Springer LNCS
  - Feb. 14-16, 2005, Science Park Amsterdam, The Netherlands.
- **Workshop on Parallel Bio-Computing (*PBC*)** at the 6-th Int'l Conference on Parallel Processing and Applied Mathematics (*PPAM*), Springer LNCS, Sep. 11-14, 2005, Poznan, Poland.
- **18-th ISCA Int'l Conference on Parallel and Distributed Computing Systems (*PDCS*)**
  - Sep. 12-14, 2005, Las Vegas, NV.
- **International Conference on Grid and Cooperative Computing (*GCC*)**, Springer LNCS
  - (4-th), Nov. 30 - Dec. 3, 2005, Beijing, China; (3-rd), Oct. 21-24, 2004, Wuhan, China.
- **Workshop on Data Mining and the Grid (*DM-Grid*)** at the IEEE International Conference on Data Mining (*ICDM*)
  - (2-nd), Nov. 27, 2005, New Orleans, LA; (1-st), Nov. 1, 2004, Brighton, UK.
- **European Science Foundation - COST Action 282 Symposium on Knowledge Exploration & Life Science Informatics (*Kelsi*)**, Springer LNAI, Nov. 25-26, 2004, Milano, Italy.
- **ISSB/ICA International Conference on Bioinformatics and its Applications (*ICBA*)**
  - Dec. 16-19, 2004, Fort Lauderdale, FL.
- **International Conference on Parallel and Distributed Processing Techniques and Applications (*PDPTA*)**, June 24-27, 2002, Las Vegas, NV.

## Reviewing

- Federal Funding Reviews
  - Panelist, NSF OCI (Office of Cyber-infrastructure), 2007
  - Panelist, NIH-NIBIB Study Section ZEB1 OSR-A(J2), 2007
  - Mail Reviewer, NIH Study Section ZRG1 BST-M(58), 2009
- Other Funding Reviews

- Mail Reviewer, Human Frontier Science Program Organization (*HFSP*, <http://www.hfsp.org>)  
2008 Research Grant Competition
- Journal Reviewing:
  - BMC Bioinformatics (2009, 2008)
  - Future Generation Computer Systems (2009, 2008, 2007, 2005, 2004)
  - Cluster Computing (2009), *Special Issue on e-Science*
  - Journal of Parallel and Distributed Computing (08, 07:5x, 05:3x, 04:2x, 03, 02, 01)
  - IEEE Transactions on Information Technology in Biomedicine (2008, 2006)
  - IEEE Transactions on Systems, Man, and Cybernetics (2007, 2002)
  - Theoretical Computer Science (2006)
  - Journal of Clinical Monitoring and Computing (2006)
  - Computing Letters (2006)
  - IEEE Transactions on Parallel and Distributed Systems (2005)  
*Special Issue on High-Performance Computational Biology*
  - IEEE Transactions on VLSI Systems (2005)
  - Parallel Computing (2005)
  - Applied Bioinformatics (2005)
  - Soft Computing Journal (2004), *Special Issue on Bioinformatics and Medical Informatics*
  - IEEE Distributed System (2003)
  - Journal of Graph Algorithms and Applications (2002)
- Conference Reviewing (other than those served on committees):
  - World Congress on Medical and Health Informatics (*MedInfo*) (2010, 2007, 2004)
  - International Parallel and Distributed Processing Symposium (*IPDPS*) (2006, 2005, 2000).
  - International Symposium on Signal Processing and Information Technology (*ISSPIT*) (2006)
  - 9-th International Conference on Parallel and Distributed Systems (*ICPADS*) (2002)
  - ACM Symposium on Applied Computing (*ACM SAC*) (2002, 2001)

### **STUDENT SUPERVISION (Degrees<sup>1</sup> Completed)**

- Serving as Major/co-Major Advisor
  - Kouros Keikhanzadeh, D.D.S (MS, 2007)  
*Division of Endodontology, Department of Oral Health and Diagnostic Sciences, School of Dental Medicine, University of Connecticut Health Center*  
Thesis Title: *Development of a True Web-Based Electronic Patient Record for Endodontics*
  - Thomas Puzak (MS, 2006)  
Thesis Title: *The Effects of Spatial Locality on the Cache Performance of Binary Search Trees*

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<sup>1</sup>Unless otherwise indicated, degrees were awarded from the Department of Computer Science and Engineering, University of Connecticut.

- Ahmed A. Mohamed (PhD, 2006, co-advised with S. Rajasekaran)  
Thesis Title: *Efficient Techniques for Multi-Document Summarization Using Document Graphs*
- Wangang Xie (MS, 2006)
- Min Qian (MS, 2004)
- Serving on Doctoral Thesis Committee
  - Lance Miller (2008, *Advisors*: A. Russell & T. J. Peters), Vishal Thapar (2008, *Advisor*: S. Rajasekaran), Mingjun Song (2008, *Advisor*: S. Rajasekaran), Marwan Sleiman (2007, *Advisor*: L. Lipsky), Jaime Davilla (2007, *Advisor*: S. Rajasekaran), Sudha Balla (2007, *Advisor*: S. Rajasekaran), Passent El-Kafrawy (2006, *Advisor*: R. McCartney), Ahmed M. Mohamed (2004, *Advisor*: R. Ammar)
- Serving on Master Thesis Committee
  - Anuradharthi Ramani (2009, Electrical and Computer Engineering, *Advisor*: J. Chandy), Tina Miriam John (2008, Electrical and Computer Engineering, *Advisor*: J. Chandy), Herak Sen (2008, *Advisor*: S. Demurjian), Mohamed Saleem (2008, *Advisor*: S. Demurjian), Ramandeep Kaur (2006, *Advisor*: S. Rajasekaran), Snigdha Verma (2006, *Advisor*: S. Rajasekaran), Hong Wang (2005, *Advisor*: A. Russell), Narasimha Shashidhar (2005, *Advisor*: A. Russell), Guanqun Zhang (2004, *Advisor*: S. Rajasekaran), Steven Moore (2004, *Advisor*: R. Ammar), Betsy Cherian (2004, *Advisor*: S. Rajasekaran), Yutong Yin (2003, *Advisor*: L. Lipsky), Xin Liu (2003, *Advisor*: I. Greenshields), Ahmed M. Mohamed (2002, *Advisor*: R. Ammar)

### TEACHING (as Instructor at University of Connecticut)

Course Taught	Semester(# of Registrants)
CSE 5304 (G) High-Performance Computing	SP09(8), SP07(10), SP05(23)
CSE 340 (G) Advanced Computer Architecture	SP08(23), FA03(23), SP02(14)
CSE 228 (U) Parallel Systems	FA04(41), FA03(45), FA02(49)
CSE 4904 (U) Computer Science Design Lab	FA08(18), SP06(6)
CSE 2500 (U) Intro. to Discrete Systems	FA09(54), SP09(40), FA01(37)
CSE 220 (U) Computer Architecture	FA06(32), SP06(19), FA05(26)
CSE 201 (U) Computer Architecture	SP08(13), SP07(17), SP05(25), SP04(28), SP03(34)

### TEACHING (as Instructor at SUNY Buffalo)

2000	Spring	CSE115	Intro. to Comp. Science for Majors (I), using JAVA (91 students)
1999	Fall	CSE113	Intro. to Comp. Programming (I), using JAVA (33 students)
1999	Summer	CSE114	Intro. to Comp. Programming (II), using JAVA (31 students)
1999	Spring	CSE116	Intro. to Comp. Science for Majors (II), using JAVA (12 students)
1998	Fall	CSE115	Intro. to Comp. Science for Majors (I), using JAVA (31 students)
1998	Summer	CSE113	Intro. to Comp. Programming (I), using C++ (33 students)

### CITIZENSHIP & VISA STATUS

Citizen of Taiwan, R.O.C.; Permanent Resident of U.S.