CURRICULUM VITAE
SHARAREH NOORBALOOCHI

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EDUCATION:

M.Sc. in Electrical Engineering, May 2007 (*expected*)
University of Minnesota, Minneapolis, MN
Advisor: Prof. Ahmed H. Tewfik

B.Sc. in Electrical Engineering, Dec. 2004
University of Minnesota, Minneapolis, MN
GPA: 3.81/4.0, *Summa Cum Laude*, Advisor: Prof. Ahmed H. Tewfik
Thesis: Genomics: A Signal Processing Perspective

WORK & RESEARCH EXPERIENCE:

- March 2005 - Present, **Predictive Modeling of Gene Regulatory Networks**, Advisor: Prof. A. H. Tewfik, University of Minnesota (UMN), Department of Electrical Engineering.
- Apr. 2005 - July 2005, **Particle Filtering for Range Tracking**, University of Minnesota (UMN), Department of Electrical Engineering.
- Sep. 2001 - Aug. 2003, **Development of Runtime Support Libraries for Dynamically Reconfigurable Systems**, Advisor: Prof. K. Bazargan, University of Minnesota (UMN), Department of Electrical Engineering.
  Project Description:
  We utilized Jbits, a tool for simulating runtime reconfiguration of Xillinx Virtex 1000 chips. The following subtasks were completed: 1)Application profiling was done on expression trees (fully parenthesized) to find common subtrees for minimum reconfiguration time. 2) In collaboration with a graduate student, an online placement engine was implemented in Java on top of JBits APIs (Application Program Interface). 3) Performed testing of the APIs on JBit's BoardScope software.
  The results of this work was published as a short paper in the FCCM conference (see the publications section).
- Oct. 2001 - Sep. 2004, **Development of Educational Software Package *Populus*** , Supervisor: Prof. D. Alstad, University of Minnesota, Department of Ecology
  Project Description:
  1) Produced Java simulations for the mathematical models of macroparasitic infection dynamics, the evolution of disease virulence, the population biology of bacterial plasmids, the evolution of temperate phage, and insect resistance management, 2) Designed a website for downloading Populus using Adobe Go live 5.
- Aug. 2000 - Dec. 2001, **Lab Assistant**, University of Minnesota, Department of Ecology
  Job Description:
  1)Prepared the media for a research on aging, 2) Collected data for different experiments done on Drosophila.

TEACHING ASSISTANT:

ECE Department, University of Minnesota
Spring Semester 2006, **EE 2361: Introduction to Microcontrollers**
Fall Semester 2005, **EE 2361: Introduction to Microcontrollers**
Summer Semester 2005, **EE 3005: Fundamentals of Electrical Engineering**
Fall Semester 2004, **EE 2301: Introduction to Digital Logic Designs**
Spring Semester 2004, **EE 4951: Senior Design Project**
Fall Semester 2003, **EE 4951: Senior Design Project**

PUBLICATION:

Sharareh Noorbaloochi, Jose F. Barbe, Ahmed H. Tewfik: "Probabilistic Modeling of Multi-level Genetic Regulatory Logic", Accepted for Workshop on Genomics Signal Processing and Statistics (GENSIPS), 2006.

Vamsi Krishna Marreddy, **Sharareh Noorbaloochi**, Kia Bazargan: " Linear Placement for Static / Dynamic Reconfiguration in JBits", IEEE Symposium on FPGAs for Custom Computing Machines (FCCM), p. 300-301, 2003.

SCHOLARSHIPS AND AWARDS:

2002 - 2004, **Electrical Engineering Departmental Scholarship**, University of Minnesota: Hartig Scholarship, Erlyn E Christianson Scholarship.

Spring 2003, **Undergraduate Research Opportunities Program (UROP)**, University of Minnesota.

2002 - 2003 **IT Merit Scholarship**, University of Minnesota.

2001 - 2002, **Undergraduate Research Assistant Scholarship**, University of Minnesota: IT Honors, IT Alumni Society.

Summer 2002, **Young Student Award (YSSP)**, Design Automation Conference, New Orleans.

HONORS:

Institute of Technology Honors Group (ITHG)
Eta Kappa Nu Electrical Engineering Honor Society
Golden Key International Honor Society

LEADERSHIP EXPERIENCES:

- 2002 - 2003: Computer Director of the Society of Women Engineers (SWE) of University of Minnesota.
- 2002 - 2003: President of the Persian Student Organization of University of Minnesota.
- 2002 - 2003: Tutor for IT Honors Program of University of Minnesota.
- 2002 - 2003: Peer Advisor for IT Honors Program of University of Minnesota.
- 2001 - 2002: Secretary of the Persian Student Organization of University of Minnesota.
- Summer 2003: Secretary of Administration of Minnesota International Student Association (MISA).

TECHNICAL SOCIETIES MEMBERSHIPS:

2002 - 2003, Member of ACM
2002 - 2005, Member of IEEE

COMPUTER SKILLS:

Programming Languages: JAVA, C, and Scheme.
Software: MATLAB, Adobe Golive, and Dreamweaver.
Operating Systems: Windows 95/98/2000/XP, UNIX.
Microsoft Office: Word, Excel, PowerPoint, etc.

RELEVANT COURSES:

Engineering: **Current:** Convex Optimization, Mathematical Modeling of Biological Networks. **Past:** Pattern Recognition, Predictive Learning from Data, Advanced Signal Processing: High Dimensional Data Analysis, Detection and Estimation, Statistics for Genetics, Stochastic and Random Processes, Wireless Communication, Image Processing, Digital Signal Processing, Communication Systems, Linear Control Systems, Introduction to Operating Systems, Physical Optics, Linear Algebra.
Biological Sciences: Genetics, Ecology

REFERENCES:

Will be provided upon request.