

Hooman Javaheri

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RESEARCH INTERESTS ▷ RF-sensitive biological system, Synthetic biology
▷ RF Energy harvesting, Ultra energy efficient wireless systems
▷ Cooperative wireless networks, Wireless sensor networks

EDUCATION **Northeastern University**, Boston, MA USA
Ph.D. in Computer Science (expected graduation date: December 2011)
– Advisor: Professor Guevara Noubir
– GPA: 3.97

Sharif University of Technology, Tehran, Iran
 B.Sc. in Electrical Engineering, June 2006
– Major in communication engineering

HONORS AND AWARDS ▷ Northeastern University full scholarship, 2006–present.
▷ 36th rank, Iran's *national graduate entrance exam* for MBA among more than 20,000 participants, 2006.
▷ Granted *dual degree scholarship* by Iranian Petroleum Ministry to study petroleum engineering, Sharif University of Technology, 2003. The program was offered to *top 60* students from all majors.
▷ 6th rank, Iran's *national university entrance exam* for Engineering and Applied Mathematics among more than 350,000 participants, 2001.
▷ Semi-finalist in four National Student Olympiads: Mathematics, Informatics, Physics and Chemistry, Iran, 1999-2000.

ACADEMIC EXPERIENCE **Northeastern University**, Boston, MA USA
Research Assistant **September 2006 to present**
– Member of Network Security and Distributed Computing Lab.
Includes Ph.D. research and course work.

Graduate coursework: Advanced Algorithms, Fundamentals of Networking, Data Networks, Digital Signal Processing, Theory of Computation, Principles of Programming Languages, Special Topics in Theoretical Computer Science: Algorithmic Power Tools, Network Algorithms, Intensive Computer Systems.

Teaching Assistant **September 2006 to May 2008**
– Fundamentals of Networking, Spring 2008.
– Computer Organization, Fall 2007.
– Computer Science and Applications, Fall 2006 to Spring 2007.
– Responsible for 3-hour laboratory supervision.

Sharif University of Technology, Tehran, Iran
 Teaching Assistant **January 2002 to August 2005**
– Computer Programming, Spring 2002 to Spring 2005.
– Designed the course's projects and tests.
– Evaluated students' term projects.

Iran University of Science and Technology, Tehran, Iran

Undergraduate Researcher

May 2003 to August 2005

- Advisor: Professor Ali Akbar Jalali
- Worked on several research projects regarding telecommunication infrastructure in Iran.
- Investigated Physical layer challenges in rural networks.

- PUBLICATIONS
- [7] H. Javaheri, B. Barbiellini, G. Noubir, “Efficient Magnetic Torque Transduction using Tunable Nanomechanical Resonators”, *in proceedings of IEEE EMBC 2011*.
 - [6] H. Javaheri, G. Noubir, “iPoint: A Platform-independent Passive Information Kiosk for Cell Phones”, *in proceedings of IEEE SECON 2010*.
 - [5] H. Javaheri, Y. Wang, G. Noubir, “Distributed Cooperation and Diversity for Hybrid Wireless Networks”, *in proceedings of WWIC 2010*.
 - [4] H. Javaheri, G. Noubir, S. Noubir, “RF Control of Biological Systems: Applications to Wireless Sensor Networks”, *in proceedings of Nano-Net 2009*.
 - [3] H. Javaheri, Y. Wang, G. Noubir, “Cross-Layer Distributed Diversity for Heterogeneous Wireless Networks”, *in proceedings of WWIC 2007*.
 - [2] M. Tabesh, M. A. Arbabian, H. Javaheri, A. Jalali, “Rural Telecommunications in Iran: A Hybrid Solution”, *in proceedings of the IEE International conference on Internet Technologies and Applications, ITA 2005*.
 - [1] H. Javaheri, M. A. Arbabian, M. Tabesh, A. Jalali, “The Analysis of Rural Telecommunication Infrastructure in Iran and Internet Connectivity”, *in proceedings of the first Information and Communication Management Conference, ICTM 2005, Iran*.

- PRESENTATIONS AND TALKS
- ▷ “iPoint: A Platform-independent Passive Information Kiosk for Cell Phones”, at The 7th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON’10), Boston, MA, June 2010.
Also at Research and Scholarship Expo 2010, Northeastern University, March 2010.
 - ▷ “The Analysis of Rural Telecommunication Infrastructure in Iran and Internet Connectivity”, The first Information and Communication Technology Management conference (ICTM), Tehran, Iran, June 2005.

PROFESSIONAL EXPERIENCE

Akamai Technologies, Inc., Cambridge, MA USA

R&D intern: Network Mapping engineer

May 2008 to September 2008

- Member of the load balancing group.
- Wrote logging scripts using SQL queries and Python to measure performance of the load balancing system in Akamai’s production network.
- Calculated new capacity coefficients for new machines in Akamai’s network.
- Developed a tool in MATLAB using GUI and statistical toolbox to evaluate the performance of FLIT, the scale used in the load balancing mechanism.

Electronic Research Center, Tehran, Iran

Technical committee member

June 2003 to July 2005

- Participated in developing *National Master Plan* for rural ICT.
- Analyzed the telecommunication infrastructure in Iran’s rural regions.
- Developed a comprehensive technical plan to address the telecommunication issues of rural and remote areas.

SERVICE

Reviewed papers for ACM MobiCom, ACM MobiHoc, IEEE INFOCOM, and IEEE SECON.

TECHNICAL
SKILLS

Programmig skills: MATLAB scripting, C/C++, Python, Unix shell scripting, SQL, Assembly, Lisp (Scheme), and HTML. Familiar with Perl and Tcl/Tk.

Tools: Comsol Multiphysics packages, SIMULINK, GNU Radio, NS (Network Simulator), Maple, Orcad, PSpice.

Embedded Systems: Software and hardware development with several MCU platforms (e.g., Texas Instruments MCU's).

Computer Applications: T_EX (L^AT_EX, B_IB_TE_X), most common productivity packages (for Windows, OS X, and Linux platforms), Mind mapping softwares.

Operating Systems: Linux, Apple OS X, Microsoft Windows family.

HOBBIES

Graphic design, Photography, Caricature, Painting, Web Design.

REFERENCES

Available upon request