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## *S. Amir Yahyavi Firouz Abadi*

### **Education**

- Ph.D. in Computer Science: 2009 – ...
  - School of Computer Science, McGill University
  - GPA: 4/4 (So far)
  - Advisors: Dr. Bettina Kemme
  - Research Topic: P2P Architectures in Massively Multiplayer Online Games
- M.Sc. in Information Technology : 2006 – 2008
  - ECE Department, University of Tehran - Among top three universities in Iran
  - GPA: 19.01/20
  - Advisors: Dr. Yazdani and Dr. Dehghan
  - Thesis: "Sleep Scheduling in Wireless Sensor Networks"
- B.Sc. in Information Technology: 2002 - 2006
  - CEIT Department, Amirkabir University of Technology (Tehran Polytechnic) - Among top three universities in Iran
  - GPA: 16.2/20
  - Advisor: Dr. Dehghan
  - Thesis: "Fraud Detection in Cellular Mobile Networks"

### **Honors and Achievements**

- McGill Principal's Graduate Fellowship
- McGill Entrance Scholarship
- McGill Provost Award
- Graduation as the first rank among IT graduate, students University of Tehran(GPA: 19.01/20) (2008)
- Ranked 42nd in the Graduate university entrance examination among more than 8,000 IT & Computer students (2006)
- Graduation among top 10 in BS degree, Amirkabir Univ. of Tech. (GPA: 16.2/20) (2006)
- Offered M.Sc. Admission to Amirkabir Univ. Of Tech. without national examination
- Ranked 540st in the university entrance examination among more than 400,000 students (2002)
- Reached first level of National Math and Computer Olympiad (2001)

### **Research Interests**

- Peer-to-Peer Networks
- Massively Multiplayer Online Games
- Wireless & Ad-Hoc Networks
- Artificial Intelligence

### **Academic Experiences**

#### **Publications:**

- H. Khalili, A. Yahyavi, Farhad Oroumchian, "Web Graph Pre-compression for similarity based algorithms", In Proceedings of Third International Conference on Modeling, Simulation, and Applied Optimization (ICSMAO'09), Sharjah, UAE, 2009 (to appear).
- A. Yahyavi, "Sleep Scheduling In Wireless Sensor Networks", M.Sc. Thesis, University of Tehran, Tehran, Iran, 2008.
- A. Yahyavi, L. Roostapour, R. Aslanzade, M. Dehghan, N. Yazdani, "Intrusion k-coverage

- in wireless sensor Networks", In Proceedings of WinSYS2008 International Conference on Wireless Information Networks and Systems, Porto, Portugal, 2008, p41-46.
- A. Yahyavi, H. Khalili,, N. Yazdani, "Delay Efficient MAC Protocol for Diffusion Based Routing in Wireless Sensor Networks", In Proceedings of WinSYS2008 International Conference on Wireless Information Networks and Systems, Porto, Portugal, 2008, p88-91.
  - A. Yahyavi, L. Roostapour, R. Aslanzade, N. Yazdani, "Dykco, Dynamic k-Coverage in Wireless Sensor Networks", In Proceedings of 2008 IEEE International Conference on Systems, Man, and Cybernetics, Suntec, Singapore, 2008, p2804-2809.
  - S. Nazemi, A. Nasiri, L. Roostapour, A. Yahyavi, M. Dehghan, "SLTP: Scalable Lightweight Time Synchronization Protocol for Wireless Sensor Network," *Lecture Notes in Computer Science*, vol. 4864, MSN2007, 2007, p. 536-547.
  - A. Yahyavi, "Fraud Detection in Cellular Mobile Networks", B.Sc. Thesis, Amirkabir University of Technology, Tehran, Iran, 2006.
  - L. Roostapour, A. Yahyavi, "Shahid Beheshti DLN Center a Case Study", ICTP Workshop on Web enabling technologies for e-Learning, 2005, Trieste, Italy. (Full Scholarship)
  - A. Yahyavi, A. Ghoorchian, O. Mirabzadeh, "A Survey on eBanking", *Rayaneh Khabar Journal*, 2005. [Persian]

#### **Conferences and workshops:**

- Tomlinson Project in University-Level Science Education (T-PULSE) Graduate Teaching Workshop for Science Graduate Students, January 2010, McGill University, Montreal, Canada
- ICTP's Workshop on Wireless ICT in Developing Countries and 2nd Awareness Workshop on the Relevance of Wireless ICT Solutions, Feb. - March2009, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy. (With full Scholarship)
- A. Yahyavi, "Designing a Cross Layer Protocol for Wireless Sensor Networks, A Case Study", ICTP's Workshop on Wireless ICT Solutions, The Abdus Salam International Centre for Theoretical Physics, Feb. - March 2009, Trieste, Italy. (Talk)
- Oral Presentation at SMC2008, IEEE International Conference on Systems, Man, and Cybernetics, Oct. 2008, Singapore
- Participated in Fuzzy Systems workshop, Amirkabir University, Oct. 2007, Iran
- Participated in 1<sup>st</sup> International information and knowledge Technology Conference, Amirkabir University of Technology 2003

#### **Memberships:**

- IEEE & IEEE Computer Society Student Member (2006-present)
- Alumni Association of Faculty of Engineering, University of Tehran (2008 – present)
- Alumni Association of Amirkabir University of Technology (2006-present)
- Student executive committee of 1st International information and knowledge Technology Conference, Amirkabir University of Technology 2005.
- Member of Amirkabir University of Technology contest, The 2003 ACM-ICPC World Regional Contest, Amirkabir University of Technology, Tehran, Iran, 2003

#### **Teaching Experience:**

- Spring 2009: University of Tehran, Operating Systems Lab
- Fall 2008: University of Tehran, Operating Systems Lab
- Spring 2008: University of Tehran, Operating Systems Lab

#### **Research Experience:**

- Fall 2009 – Present: Distributed Information Systems Lab, McGill University
  - Research Assistant

- Advisor: Dr. Bettina Kemme
- Topic: Peer-to-Peer Architectures for MMOGs
- Fall 2006 – Spring 2009: Router Laboratory, University of Tehran
  - Research Assistant
  - Advisor: Dr. Yazdani and Dr. Dehghan
  - Wireless Sensor Networks
  - Sleep Scheduling in Wireless Sensor Networks
  - Power Awareness in Real Time Protocols in Wireless Sensor Networks
- Fall 2005 – Summer 2006: Ad-hoc and Wireless Networks Laboratory, Amirkabir Univ. of Tech.
  - Advisor: Dr. Dehghan
  - Application of Artificial Intelligence in detecting Fraudulent Behavior in Cellular Mobile Networks
  - Time Synchronization in Wireless Sensor Networks

***Selected Academic Projects:***

- Fall 2009: Distributing an application through Middlewares and JAVA RMI. Distributed Systems Course.
- Fall 2009: A reusable software fault tolerance library in Java. Software Fault Tolerance Course.
- Spring 2006: Application design and development for a Electronic Store with inventory management, using ASP.NET and Microsoft SQL server
- Spring 2006: Implementation of a Visual Management Information Base for SNMP Protocol (Pull Model), using C++ and QT-Designer in Fedora Core.
- Fall 2005: Design and Prototype Implementation of a Case Management System for Courts Based on Web Services, Using PHP and NuSOAP.
- Spring 2003, Design and Implementation of a Multiplayer Game (Age of Empires Prototype), Using C++ and Socket Programming

***Work Experiences***

- ASP.NET programmer, Behbahan Cement Company (Sep 2005 -Dec 2005)
- Software expert, Chista Software Group (Summer 2005)
- Web Developer, Oil Industries and Construction Company (Jan 2005, March 2005)
- C++ Programmer & Software Analyst, Metanet Amirkabir Company (Summer 2004)

***Language Proficiency***

- TOEFL IBT Oct. 2008: 114/120 (Native). Reading:30/30, Listening: 30/30, Speaking: 24/30, Writing: 30/30
- IELTS 7.5/9: DEC. 2006; Reading: 9/9, Listening: 7/9, Writing: 7/9, Speaking: 7/9
- GRE Oct. 2008: Verbal: 520/800 (Percentile: 66%), Quantitative: 780/800 (Percentile: 90%), Analytical: 3.5/6.0 (Percentile: 20%)
- GRE Oct. 2007: Verbal: 350/800, Quantitative: 800/800, Analytical: 3.5/6.0
- French: Basic

***Computer Skills***

- Operating systems: Windows , Linux, some MAC
- Programming languages: C# , C++, Java, Linux Shell programming, .Net Framework
- Database Systems: Microsoft SQL Server, MySQL, Oracle
- Web development: ASP.NET, PHP, JavaScript, HTML, CSS
- Simulation: NS2, J-Sim, TOSSIM

*References will be furnished upon request*