## Farhad Shahmohammadi

Department of Computer Engineering Sharif University of Technology Azadi Avenue, Tehran, Iran, 11155-11365

Cell Phone: +98 912 639 0927 fshahmohammadi@ce.sharif.edu

http://ce.sharif.edu/~fshahmohammadi

#### Research Interests

- ♦ Design and Analysis of Algorithms
- ♦ Wireless Sensor Networks
  - ♦ Network Protocol Design
  - Algorithmic Game Theory and Social Networks

#### EDUCATION

♦ Sharif University of Technology, Tehran, Iran (2009 – Present)

B.S. in Computer Engineering, GPA to date: 17.70/20.

relevant courses, GPA 19.63/20: Advanced Programming(20/20), Computer Simulation(20/20), Probability and Statistics (18/20), Approximation Algorithms (Grad., 19/20), Design of Algorithms (20/20), Data Structures and Algorithms (20/20), Discrete Structures and Mathematics (20/20), Theory of Languages and Automata(20/20), Computer Networks(current)

Allameh Tabatabaei Complex of Cultural and Educational Units,

Tehran, Iran, (2005 - 2009)

Diploma in Physics and Mathematics Discipline, **GPA:** 19.22/20.

# AWARDS

- HONORS AND ♦ Deputy Leader of Iran Delegation in the 25<sup>th</sup> IOI in Australia (summer 2013)
  - ♦ Ranked 3<sup>rd</sup> in the West Asia Regional ACM-ICPC Contest, Tehran, Iran (2012)
  - ♦ Ranked 6<sup>th</sup> in the West Asia Regional ACM-ICPC Contest, Tehran, Iran (2011)
  - ♦ Ranked 3<sup>rd</sup> in the West Asia Regional ACM-ICPC Contest, Tehran, Iran (2010)
  - ♦ Recognized and awarded as **Outstanding Student** by university president (2009)
  - ♦ Recipient of the grant for undergraduate studies from the Iranian National Elites Foundation, for outstanding academic success (2009 – present)
  - ♦ Admission to Sharif University of Technology (2009) The well renowned university in Iran, the place for all previous and current gold medalists in National Olympiads and top ranked students of the nationwide university exam.
  - ♦ Gold Medal in the Iranian National Olympiad in Informatics (2008) The Olympiad in Informatics consists of solving problems of an algorithmic nature, and sophisticated computer programming challenges.

#### PROFESSIONAL & Member of INOI¹ Committee

### EXPERIENCE

- Head of Scientific Committee of Iran Nationwide Programming Contest (spring 2013)
- Head of the Students Winter Camp for IOI (winter 2012)
- Head of Scientific Committee of Iran Nationwide Theoritical Contest (spring 2012)
- Member of the National Committee for IOI at Young Scholars Club<sup>2</sup> (summer 2011 present)
- Member of the Scientific Committee of IOI at Young Scholars Club (summer 2009 present)
- ♦ Member of Scientific Committee of regional contest of ACM ICPC (fall 2013)
- ♦ Subreviewing paper for the 7th International Conference on Combinatorial Optimization and Applications (COCOA 2013)
- ♦ Participated in Advanced School in Developing Scientific Programs, Organized by ICTP institute in Trieste, Italy (winter 2012)

#### Teaching EXPERIENCE

#### Lecturer at Young Scholars Club

- Lecturer of Data Structures and Algorithm Design Course (summer 2012)
- Lecturer of C++ Programing Course (summer 2011)
- Working as TA for C++ Programing and Special Topics in Computer Science such as Algorithms and Data Structures and Graph Theory in training campus of Iranian National Olympiad in Informatics (2009 - 2010)

#### ♦ Teaching Assistant

- o Theory of Languages and Automata, Spring 2012; Instructor: A. Movaghar.
- o Algorithm Design, Fall 2012; Instructor: H. Zarrabi-Zadeh, M. Abam.
- o Compilers and Automata Theory, Fall 2012; Instructor: M. Izadi
- Fundamentals of Programming, Fall 2012; Instructor: F. Zamani.
- o Artificial Intelligence, Spring 2012; Instructor: M. Soleymani
- o Algorithm Design, Fall 2011; Instructor: A. Sharifi
- o Discrete Structures, Fall 2011; Instructor: M. Abam

#### ⋄ Teacher of Special Topics in Mathematics (2008 – present)

Teaching high school students who wanted to prepare for olympiad of Informatics Teaching material included Programming, Algorithms and Problem Solving Strategies

#### Working Papers

#### ♦ Some Upper Bounds and Lower Bounds on Signed Edge Total Domination Number of Graphs

A joint work with S. Akbari, A. Jabal-Ameli. To be written.

#### Projects

#### $\diamond$ SMJ

SMJ is a lightweight judging system that was implemented for 3<sup>rd</sup> round of Iranian National Olympiad in Informatics, a simple on-site programming contest. It was used successfully in summer of 2013 and is planned to be used in the following years.

Test Scores  $\diamond$  **Toefl** (September 2013) Internet-Based Test: **106/120**.

Reading (27/30), Listening(29/30), Speaking(23/30), Writing(27/30).

♦ **GRE** (October 2013): General Test, Paper-Based. Verbal(146/170), Quantitative(165/170), Writing(3.5/6).

#### SKILLS

- ♦ Programming Languages: C/C++, Python, Java, Android Development, Verilog HDL
- ♦ Web/DB Technologies: HTML, CSS, PHP, MySQL
- ♦ Tools: Altera Quartus, Modelsim, Matlab, Wireshark
- ♦ Operating Systems : Linux, Windows
- ♦ Typesettings: LATEX, Vim

# LANGUAGE

♦ Persian (Native)

Proficiency

♦ English (Fluent)

<sup>&</sup>lt;sup>1</sup>Iran National Olympiad in Informatics

<sup>&</sup>lt;sup>2</sup>Young Scholars Club acts as the sole authority and regulating body for scientific Olympiads in Iran.