Nima Tavassoli

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I am passionate about data, extracting meaningful patterns and developing technologies that can store and process large amount of information.

Interests Area

- Big data, Large-scale computer architecture, Distributed systems
- AI accelerators
- Machine learning, Neural networks, Deep learning

Education

- (2015) Bachelor, of Computer Engineering   ***Amirkabir University of Technology***
- High school, Diploma of Math & Physics   ***Sari Shahid Beheshti High School (NODET)***
  GPA: 19.75/20

Technical Experiences

- (July 2018) **Big Data Engineer Intern at *Shomara* (*Shomara.ir*)**
- **Develop applications for big data analysis and Apache Spark as a Service web-app**
- **Working with big data, distributed file systems and Apache Spark ecosystem**
  (Spark Streaming, Spark SQL, Apache Livy)
- (2017) **Developing server-side applications**
  (Node JS, Loopback, Express, Mongo DB, Telegram Bot API)
- (2016) **RoboCup Rescue Agent Simulation member of CEIT team (S.O.S)**
  (Java)
- **Mobile Application Development as side projects**
  (Android, React Native, Redux)
- **Interested in Competitive Programming Competitions**
  (C++)
- **Projects for data mining, engineering mathematics, probability and stochastics, signals and systems university courses**
  (Python, Matlab)
- **Projects for digital electronics, computer architecture, FPGA, microprocessor, embedded and real-time systems university courses**
  (VHDL, Verilog, Assembly, SPICE)

Technical Experiences (Details)

- **Node JS**
  - Backend of Telegram channel ranking system
  - Backend developer intern at (*adshot.ir*) startup
  - Developing of Telegram bot for food exchanging at Amirkabir University

- **JAVA**
  - Develop applications for big data analysis and Apache Spark as a Service web-app
  - Implementing routing, clustering and decision making algorithms for agents like Police, Ambulance, Civilians, Firefighters in Rescue Simulation Robotic team
  Development of code base used years ago for S.O.S team
  Working with new software framework **Agent Development Framework** (ADF) and develop some algorithm on that.
  (http://rescuesim.robocup.org/competitions/agent-simulation-competition/)

  - Strategic like game for final project advanced programming course (teamwork in group with 2 other students)

- **C++**
  - Solving algorithmic and challenging problems as fun and programing practice

- **Python, Matlab**
  - Doing some tiny projects for data mining, engineering mathematics, probability and stochastics, signals and systems university courses.

- **VHDL, Verilog, Assembly**
  - Design and implementation of computer architecture components: processor, main memory, pipeline and caching system
  - Working with FPGAs, hardware/software co-design
  - Program ATMEGA16 microcontroller
  - Working with FRDM-KL25Z board at Embedded and Real-time systems course

Publication

- (2017) S.O.S Team Description Paper for participating in RoboCup 2017 Nagoya Japan that has been accepted by RoboCup Rescue Agent Simulation Executive and Technical Committees.
  Authors : Kasra Darvishi, Nima Tavassoli, Reza Bayat, Amin Rashid Beigi, Leila Azimi and Mehrnaz Payami

Voluntarily Experience

- (2017-2018) Member of Computer Engineering and IT department of Amirkabir University of Technology Student Scientific Chapter (Industry Relations section)
- (*December* 2017) Present a talk about (**Deep Reinforcement learning in games**) for Research methods course.
- (*August* 2017) Participating in Tehran Fashion & Tech startup weekend as a Developer (modotech.ir)

Honors & Awards

- (2015) Ranked in 0.7% among more than 181,846 participators in Nation-wide University Entrance Exam among all Iranian Students of Math & Physics
- (2013) Semi-finalist at National Computer Olympiads
- (2011) Semi-finalist at National Mathematics and Computer Olympiads
- (2007-2014) Member of National Organization for Development Exceptional Talents (NODET)