

Nima Tavassoli

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I'm interested in machine learning and modern AI, also passionate about developing platforms that can solve real-world problems with the help of learning algorithms.

Interests Area

- Statistical Machine Learning
- Large scale Data Analysis

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)

- **Python, Matlab**
 - Doing quite a few projects for Data Mining, Engineering Mathematics, Probability and Stochastics, Signals and Systems university courses.
 - Implementing Statistical Machine learning algorithms, Neural networks using Tensorflow, Keras libraries.
- **JAVA**
 - Development of 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)
 - Development of digital painting environment
- **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
- **C++**
 - Solving algorithmic and challenging problems as fun and practice
- **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

Talks & Presentations

- (January 2018) **Discretization Methods**, For Data Mining course.
 - (<https://nimtaa.github.io/Files/Discretization-presentation.pdf>)
- (December 2017) **Deep Reinforcement learning in games**, For Research methods & Report Writing course.
- (October-December 2017) **Computer Engineering as a University Major**, Talk for High school students visited Amirkabir University of Technology.

Executive Experiences

- (January 2017- January 2018) Member of Computer Engineering and IT department of Amirkabir University of Technology **Student Scientific Chapter** (Elected by Votes of Students)
- Member of Executive Committee
The following events were held in CEIT Department of Amirkabir University of Technology (Tehran Polytechnic):
 - (May 2017) 9th Amirkabir National Linux Festival
 - (October 2017) First AUT Data Mining Cup
 - (October 2017) Advanced FPGA workshop
 - (November 2017) 17th AUT ICPC

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)