

Contact Information	<p>Dept. Computer Engineering Amirkabir University of Technology No. 424, Hafez Ave. Tehran, Iran 15914</p> <p><i>E-mail: sajjadaazami@gmail.com Phone: +98 (936) 010 86 90 Homepage, Github, LinkedIn</i></p>
Research Interests	<ul style="list-style-type: none"> ◇ Intelligent Robotics ◇ Statistical Machine Learning ◇ Deep Learning ◇ Cognitive Science ◇ Data Mining and Large Scale Data Analysis ◇ Game Theory, Mechanism Design ◇ Mathematical Optimization
Education	<p>Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran</p> <ul style="list-style-type: none"> ◇ B.Sc. Hardware Engineering, 2013 - 2018 (Expected) (Ranked 2 among all Iranian Universities) (Ranked 85 top Computer Science Universities in the World) <ul style="list-style-type: none"> • Cumulative Grade Average: <ul style="list-style-type: none"> • Major Related Courses: 18.8/20 • Last 40 Units: 18.4/20 • Total Passed 92 Units: 16.52/20 <p>Shahid Madani High School, Tabriz, Iran</p> <ul style="list-style-type: none"> ◇ Diploma in Physics and Mathematics Discipline 2008 - 2012 <ul style="list-style-type: none"> • Cumulative Grade Average: 19.34/20 • Affiliated with <i>the National Organization for the Development of Exceptional Talents (NODET)</i>
Relevant Education And Coursework	<ul style="list-style-type: none"> ◇ Amirkabir University of Technology <ul style="list-style-type: none"> • Design of Algorithms: 17.5 Level): Audited • Statistical Machine Learning (Graduate Level): TBA • Principles of Database Design: 18 • Stochastic Processes: 19.2 • Database Design Lab: 19.8 • Advanced Programming: 20 • Research and Report Writing: 16.7 • Software Engineering: 18 • Engineering Economics: 20 • Principles of Data Mining: TBA • Operating System Design: 18.7 • Machine Learning(Graduate • Operating System Design Lab: 20 ◇ Online Courses <ul style="list-style-type: none"> • Deep Learning for Self-Driving Cars(Watching) <i>MIT OpenCourseWare</i> • Machine Learning <i>Stanford University</i> • Neural Networks and Machine Learning <i>University of Toronto</i> • Mining Massive Datasets <i>Stanford University</i> • Introduction to Recommender Systems <i>University of Minnesota</i>

- **Algorithms I**
- **Game Theory**
- **Think Again How to Reason and Argue**

*Princeton University
Stanford University and UBC
Duke University*

- Honors and Awards
- ◇ 3rd Place, Rescue Simulation League, Virtual Robot Competition, RoboCup 2016, Leipzig, Germany, As a member of **SOSVR** team
 - ◇ First Place, **Tehran Startup Weekend**, Tehran, Iran, 2014
 - ◇ Ranked in top 0.2% place among all applicants for the University Entrance Nationwide Exam (Approximately 350000 test-takers) in Math. and Eng., Iran, 2012
 - ◇ Third Place, **Tournament of the Towns Math Competition**, Tabriz, Iran, 2011

Teaching
Experience

- Amirkabir University of Technology**, Tehran, Iran
(sample graded material and student evaluations available upon request)
- ◇ **Teaching Assistant for Advanced Programming** *Spring 2017*
Prof. M. Noorhosseini
 - ◇ **Teaching Assistant for Introduction to Statistics and Probability** *Spring 2017*
Prof. M. Amirhaeri
 - ◇ **Teaching Assistant for Data Structures and Algorithm Design** *Fall 2016*
Prof. M. Dehghan
 - ◇ **Teaching Assistant for Advanced Programming** *Spring 2016*
Prof. M. Noorhosseini

Notable Projects

- ◇ **Research Projects**
 - **OpenVRI Framework** *Dec 2016 - Present*
OpenVRI is an open source framework and a research tool for Robotics AI algorithm development. It provides tools and High-level API for Experimenting Intelligent Robots, train & test Learning Models, and evaluating results in 3D simulated environment.
 - **LinkedIn Recommender System** *Sept 2016 - Present*
Designing and implementing a Recommender System to recommend similar users based on their skills and other various characteristics on LinkedIn.
 - **3D Human Pose Estimation from 2D Images for a Rescue Robot** *Nov 2016 - Present*
Implementing and evaluating 3D human pose estimation using 2D raw images subscribed from robot's camera sensor on a simulated rescue robot.
 - **Credit Card Transaction Fraud Detection** *Nov 2016*
Project done for Iran's National Data Mining contest. The goal was to classify credit card transaction as fraud or non-fraud.
 - **SOSVR Base Code** *June 2016*
Base code of SOSVR team for Virtual Robot Competition, including behaviour, human detection, navigation and bring-up packages.(Python, C++, ROS, Human Detection)
 - **Ice-Fire Challenge** *March 2016*
Design and Implementation of a multi-agent algorithm for AI Challenge held at

Sharif University of Technology, Tehran, Iran.(Java, Multi-Agent Algorithms, Artificial Intelligence)

◇ Academic Course Projects

- **Implementing and Evaluating a PGM for Classification of Illness** *Fall 2016*
(Python, Regression), *Statistical Machine Learning*
- **Implementing and Evaluating Generalized Autoregressive Conditional Heteroscedasticity Model to Predict Power Usage of Ontario State** *Fall 2016*
(Python, GARCH, Statistical Inference), *Statistical Machine Learning*
- **Implementing and Analysing Linear Regression on a Dataset of Student Grades** *Fall 2016*
(Python, Regression), *Statistical Machine Learning*
- **Face Recognition Using SVD(An Implementation of [this paper](#))** *Fall 2016*
(Matlab, SVD, Linear Algebra), *Advanced Engineering Mathematics*
- **Image Compressor Using Low Rank Matrix Approximation** *Fall 2016*
(Matlab, Matrix Factorization, SVD), *Advanced Engineering Mathematics*
- **Designing and Implementing Database of an insurance company** *Spring 2016*
(Oracle Database), *Database Design Lab*
- **Designing and Implementing a chat room with NoSQL database** *Spring 2016*
(XML, JSON, NoSQL, Java), *Principles of Database Design*
- **Implementing Process Migration on xv6 Operating System** *Spring 2016*
(MySQL), *Principles of Database Design*
- **Motion Planner Using Dijkstra Algorithm** *Spring 2015*
(Java), *Dijkstra, A*, Algorithm Design*
- **Implementing a File Compressor Using Huffman Algorithm** *Fall 2014*
(BST tree, Insertion Sort) (Java), *Data Structures*
- **Implementing a Web Browser and Download Manager** *Spring 2014*
(Java), *Advanced Programming*
- **Implementing a Graphical Game With Multiplayer Support** *Spring 2014*
(Java), *Advanced Programming*
- **Assembler For C Language** *Fall 2013*
(C, Lexer ,Parser, Intermediate Code Generation), *Principles of Computer Programming*

Research
Experience

- ◇ **Research Assistant at [Cognitive Robotics Lab](#)** *July 2015 - Present*
Computer Engineering Department, Amirkabir University of Technology.
Supervisor: Prof.Shiry
- ◇ **Member of [SOSVR Robotic Team](#)** *January 2015 - Present*
Vision, Navigation, SLAM and Behaviour

Publications

- ◇ M. TaherAhmadi, S. Azami, M. Javadi, S. Shiry. "OpenVRI, An Open-Source Virtual Robot Intelligence Framework". (to be submitted) In *Intelligent Robots and Systems, 2017. IROS 2017. IEEE/RSJ International Conference*. IEEE, 2017.
- ◇ M. TaherAhmadi, S. Azami, S. Shiry, "3D Human Pose Estimation from 2D Images for a Rescue Robot".(to be submitted), March 2017.

	<ul style="list-style-type: none"> ◇ M. TaherAhmadi, S. Azami, S. Shiry, "S.O.S VR Team Description Paper, RoboCup 2016 Rescue Virtual Robot League". <i>International RoboCup Competition</i>, July 2016. (Link to Paper) 	
Academic Technical Reports	<ul style="list-style-type: none"> • Sajad Azami, "Detecting Credit Card Transaction Fraud Using Gradient Boosting" - Technical Report for Iran's National Data Mining Contest. (L^AT_EX) • Sajad Azami, "Implementing and Analysing Linear Regression on a Dataset" - Technical Report for Statistical Machine Learning Final Project. (L^AT_EX) • Sajad Azami, "Implementing and Evaluating a PGM for Classification of Illness" - Technical Report for Statistical Machine Learning Final Project. (L^AT_EX) • Sajad Azami, "Implementing and Evaluating a Parametric and a Non-Parametric model to Predict Power Usage of Ontario State" - Technical Report for Statistical Machine Learning Final Project. (L^AT_EX) • Sajad Azami, Taher Ahmadi, "Face Recognition With Singular Value Decomposition" - Technical Report for Implementation of this Paper. (L^AT_EX) • Sajad Azami, "Image Compression Using Low Rank Matrix Approximation" - Technical Report for Advanced Mathematics Final Project. (L^AT_EX) • Sajad Azami, "Fraud Detection Using Game Theory and Data Science" - Technical Report for Research Method and Technical Report Writing course. (L^AT_EX) • Sajad Azami, "Report for Project Implemented and Related Questions" - Technical Report for Project Done in Database Lab Course. (L^AT_EX) 	
Work Experience	<ul style="list-style-type: none"> ◇ Senior Android Developer at Golrang Industrial Group(GIG) <i>Summer 2015</i> <ul style="list-style-type: none"> • Neesa Organizational Bulletin An enterprise generic newsletter for organizations, developed in Android and Django framework. • Daroo Client An enterprise Android application to be used by drugstores to order medicine online. ◇ Android Developer at PANA Software Group <i>Feb 2014 - Jul 2015</i> <ul style="list-style-type: none"> • Darsbarg A well-designed Android application for selling and buying sample questions in order to prepare for exams. • Treep An Android application that I worked on as starter project to improve the application on it's second version. 	
Lectures and Presentations	<ul style="list-style-type: none"> ◇ Guest Lecturer in 8th Linux Festival <i>Amirkabir University of Technology</i> <i>May 2016</i> <ul style="list-style-type: none"> • Python Workshop • Linux Basic Workshop ◇ Android Workshop for Java Students(2 Sessions) <i>Amirkabir University of Technology</i> <i>Spring 2016</i> 	
Executive Experience		

- ◇ **Member of Technical Committee in 8th Linux Festival**
Amirkabir University of Technology

May 2016

Skills

- ◇ **Programming:** Java, Python, C, C++, Matlab
 - Familiar With: J2EE, XML, JSON
- ◇ **Scientific Tools, Platforms and Frameworks:** ROS, Caffe, Theano, Scikit, Pandas, IPython, OpenCV, GNU Octave, Weka, Android
- ◇ **Databases:** MySQL, MongoDB, Oracle, Microsoft SQL Server
- ◇ **Web Languages:** HTML, PHP, CSS, JavaScript
- ◇ **Scripting:** Bash
- ◇ **Operating System:** Linux
- ◇ **Typesetting:** \LaTeX , Vim

Extra-curricular Activities

- ◇ Participating in AI and Data Mining Online Competitions.(Codes Are Available on My Personal [Github](#))
- ◇ Responsible for Sports Section of Faculty *2014 - 2016*
- ◇ Captain of Football and Futsal Team of Faculty *2014 - 2016*
- ◇ Writing for Pouyesh, CEIT students association magazine *March 2016*
- ◇ Playing [Setar](#), A Persian Musical Instrument *2012 - Present*
- ◇ Reading Philosophy and Psychology Novels and Books