

Ali Satvaty

CONTACT INFORMATION

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RESEARCH INTERESTS

- Artificial Intelligence
- Data Science

EDUCATION

- **[Sharif University of Technology, Tehran, Iran](#)** Nov. 2020 – Now
M.Sc. in Artificial Intelligence – Computer Engineering
Summary: I entered in the fall semester, and the classes are being held virtually. I have passed 2 courses (Planning – Speech Recognition) and I have taken 2 courses this semester (NLP – ML). Moreover, my research is going to be on the NLP and question answering, so I am studying papers on NLP to define my thesis subject.
- **[University of Tehran, Tehran, Iran](#)** Sept. 2014 – Jun. 2019.
B.Sc. in Control – Electrical Engineering, **GPA: 17.02/20**
Thesis: Transformers' Oil Tests Analysis Software
Summary: Transformers' oil gets exhausted under working circumstances and its quality reduces. Transformers' performance depends on their oils' situation and quality. Different errors in transformers proceed to produce different gases that get solved in the oil. By sampling from its oil and under IEC60422 criteria, we can define the oil quality. According to the importance of these oil tests and their required accuracy, we designed and implemented a software that can analyze and interpret these sampling values and recommend needed actions to the maintainers. These tests also get saved into a database with timestamps because some criteria require monitoring sampling values over specific periods of time.
Supervisor: [Dr. Shayegani](#)

EXPERIENCE

- **Internship, Backend Developer, [Idearun Co.](#)** Jan. 2019 – Jun. 2019
Summary: I spent a 5 months internship in Idearun co. as a backend developer. In my internship program, I worked on two projects.
The first one was a platform for barberies to automatize their reservations and also payments. These projects had two major sections. One section for the barbers which they should the web browser to connect to the platform and the other section designed for their customers which should use our application installed on their phones. The source is available [here](#).
My second internship project was a payment platform in which merchants could create payment forms and could share them with people to pay it by connecting to the third-party payment gates. The source is available [here](#).
These projects were implemented using Django framework and Rest API which are both libraries of python.
- **Freelance Python Developer, May 2017 – Jan. 2019**
Summary: I have done lots of projects as a freelancer. At first, I started creating telegram bots for people using python programming language and I have created dozens of bots. After that, I got familiar with the Django framework of python and I began to create websites using Django as the back-end framework plus Bootstrap and JavaScript as the front-end tools. I also have done some web scraping and web crawling projects for my customers. Some of my projects are open-source and available in my [GitHub](#).
- **Researcher and Developer, [Human and Robot Interaction Lab.](#)** Feb 2016 – Feb 2017
Summary: I have worked in this laboratory as a researcher and we were working on a 3-DoF Delta robot, especially I was working on the artificial intelligence part of the system. At first, we created a conveyor belt system, and then we designed a vision system for the process of pick and place. The robot was able to detect special but simple objects using image processing in Matlab and pick them up using suction. My laboratory page is available [here](#).

HONORS AND AWARDS

- *Sept. 2020* - Ranked 4th in the nationwide Information Technology master's degree program entrance exam between 30,000 participants.
- *Sept. 2020* - Ranked 12th in the nationwide Artificial Intelligence master's degree program entrance exam between 35,000 participants.
- *Jan. 2018* – Received scholarship from faculty of Engineering as an exceptional talent student.
- *Nov. 2018* – Ranked 1st in Sharif University of Technology's Bot Cup contest
- *Jan 2017* – Received scholarship from faculty of Engineering as an exceptional talent student
- *Sept. 2014* - Ranked 192 in the nationwide mathematics and physics university entrance exam among 210,000 participants (top 0.1%)
- *Feb. 2012* – Passing the first level of the nationwide Mathematics Olympiad.
- *Sept. 2007* – Accepting in NODET

TEACHING ASSISTANTSHIP

- *Fall 2017* - Communication Systems 1; Instructor [Dr. Abbasfar](#)
- *Spring 2016* - Linear Control Systems Laboratory; Instructor [Dr. Abbasian](#)
- *Fall 2015* - Electrical Circuits I Laboratory; Lab. Instructor [Dr. Rashed](#)

SELECTED COURSES

Related Courses

Machine Learning	taking	Dr. Rohban
Artificial Intelligence	taking	Dr. Rohban
Natural Language Processing	taking	Dr. Bokaie
Speech Recognition	17/20	Dr. Sameti
Digital Logic Design	19.7/20	Dr. Navabi
Introduction to Computer and Programming	16.75/20	Dr. Moradi
Advanced Programming	17.41/20	Dr. Khosravi
Microprocessors	20/20	Dr. Fatemi
Linear Control Systems	18/20	Dr. Abbasian
Advanced Control Systems	16.3/20	Dr. Kebriaiee
Computer Architecture	17.8/20	Dr. Safari
Signals and Systems Analysis	18.3/20	Dr. Rabiee

Basic Courses

Calculus I	18/20	Dr. Feyz
Calculus II	19.25/20	Dr. Abedian
Engineering Probability and Statistics	19.1/20	Dr. Olfat
Linear Algebra	17.75/20	Dr. Jamshidi
Engineering Mathematics	18.76/20	Dr. Mohammadpour
Differential Equations	18.5/20	Dr. Mohajer

Mentionable and Related Open Studies

- Algorithms and Data Structures ([CLRS](#))
- Automata Theory ([An Introduction to Formal Languages and Automata by Peter Linz](#))
- Artificial Intelligence ([Artificial Intelligence: A Modern Approach by Russel](#))
- Operating System Concepts ([Operating System Concepts by Abraham Silberschatz](#))
- Database System Concepts ([Database System Concepts by Abraham Silberschatz](#))
- Compilers ([Compilers: Principles, Techniques, and Tools by Alfred Aho](#))
- Machine Learning Nanodegree ([Udemy](#), Machine Learning Engineer Nanodegree, Completing soon...)

COURSE PROJECTS

Course: ***Speech Recognition***

Advisor: [Dr. Sameti](#)

Title: Emotion recognition from speech

Course: ***Planning in AI***

Advisor: [Dr. Sani](#)

Title: Implementing the POP algorithm

Course: ***Advanced Programming***

Advisor: [Dr. Khosravi](#)

Title: Design and programming of a Uber-like taxi reserving system.

Course: ***Linear Control Systems***

Advisor: [Dr. Abbasian](#)

Title: Inverted pendulum stabilization in Simulink

Course: ***Instrumentation***

Advisor: *Dr. Nayeri*

Title: creating a roll call device using fp20 module

Course: ***Signals and Systems Analysis***

Advisor: [Dr. Rabiee](#)

Title: Developing an Equalizer and Noise canceller program in Matlab

Course: ***Microprocessors***

Advisor: [Dr. Fatemi](#)

Title: Designing and implementing an Automatic Vacuum Cleaner

Course: ***Industrial Control***

Advisor: [Dr. Kalhor](#)

Title: Stabilization of a balls' height in a vertical pipe

Course: ***Digital Logic Design***

Advisor: [Dr. Navabi](#)

Title: Implementing a digital oscilloscope on FPGA

SELF-MADE PROJECTS

- Some of my projects is available on my [GitHub](#).
- Creating a [website](#) for people to sell their stock objects
- A scrapper bot that collects news from the web and places them on a news website
- An Arduino based puzzle box
- Lots of telegram bots

SKILLS

Programming Languages: Python, MATLAB, C/C++/C#, JavaScript, Verilog, Html/CSS, SQL

Software: Git, MongoDB, Arduino, AutoCAD, WordPress, Codevision-AVR, Proteus, Multisim, Modelsim, Adobe Illustrator.

Typesetting: Microsoft Word, LaTeX.

Languages: Persian (native), English (TOEFL: R[22]+L[27]+S[23]+W[27]=99), Arabic (Familiar)

HOBBIES

Chess, Hiking, Swimming, Football, Table Tennis, Books, Watching movies

PERSONALITY TYPE

INTJ (Based on 16 personalities website Test)