





# Amir Pourmand

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## Research Interests

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- ◇ Deep Learning
- ◇ Computer Vision
- ◇ Natural Language Processing
- ◇ Reinforcement Learning

## Education

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### Sharif University of Technology

Sep. 2020 - Present

*Master of Science in Artificial Intelligence and Robotics*

*Tehran, Iran*

- ◇ GPA: **18.7/20** or 4/4
- ◇ Relevant courses (GPA: 19.25/20): Machine Learning (19.5/20), Statistical Machine Learning (19/20)
- ◇ Master's Project
  - ◇ Project Supervisor: [Prof. Hamid R. Rabiee](#)
  - ◇ Project Title: Real-time automatic Polyp detection and classification using explainable artificial intelligence
  - ◇ Project Summary: We want to localize and classify polyps within an object. However, as doctors have to do a biopsy, some pixels should be highlighted which is the requirement of being interpretable. Hence, we are building interpretable real-time YOLO (combined project with the Tehran University of Medical Sciences).

### Yazd University

Sep. 2016 - Sep. 2020

*Bachelor of Science in Computer Engineering*

*Yazd, Iran*

- ◇ GPA: **17.47/20** or 3.66/4, Units: 140
- ◇ Relevant courses (GPA: **19.95/20**): Intelligence and Expert systems (19.7/20), Foundations of Information Retrieval and Web Search (20/20), Fundamentals of Information Technology (20/20), Microprocessors and Assembly Language (20/20), Principles of Database Design (20/20), Internet Engineering (20/20)
- ◇ Bachelor's Project
  - ◇ Project Supervisor: [Prof. V. Derhami](#)
  - ◇ Project Title: A Recommendation System for shopping centers using Apriori Algorithm
  - ◇ Project Summary: The data was extracted from SQL-Server database and used to determine frequent itemsets and their metrics such as confidence and lift; then, It was used to recommend some goods to customers.

### Malek Sabet High School

Sep 2012 - June. 2016

*Diploma in Physics and Mathematics Discipline*

*Yazd, Iran*

GPA: **19.49/20**, Units: 102, [Affiliation: Governmental leading high school](#)

## Honors and Awards

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- ◇ Awarded a grant by **National Elite Foundation** for two semesters (1 year), October 2021.
- ◇ Ranked **1st** among over 16,000 graduate applicants in the Iranian National University Entrance Exam for M.Sc. of Computer Engineering in **7 (all CE) majors**, August 2020 (This rank is **unprecedented** in history of CE University entrance exam). [\[Certificate\]](#)
- ◇ **Silver Medal** in the 25th Scientific Olympiads for Iranian University Students in February 2021. [\[Link to Olympiad website\]](#)
- ◇ Ranked **1st** in the 24th Scientific Olympiads for Iranian University Students in Region 6 and Ranked **16th** in the country in 2019. [\[Link to Olympiad website\]](#)
- ◇ Offered admission to M.Sc. program in Artificial Intelligence at Yazd University as talented undergraduate student, August 2020.
- ◇ Ranked among top 1 percent in the Iranian National University Entrance Exam (1896th among over 300,000 participants), June 2016.

## Under Prepration papers

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### Predicting who will benefit from ETV in pediatric population with hydrocephalus

Jan 2021 - Present

Sharif University of Technology, Shiraz University of Medical Sciences

Supervisor: Prof. Hamid R. Rabiee

Description: Prediction of ETV-Success in children using explainable AI (XAI).

## Academic Projects

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### Deep Learning

Aug 2021 - Jan 2022

Sharif University of Technology, <https://github.com/pourmand1376/DL-Homeworks>

Supervisor: Prof. Hamid Beigy

### Stochastic Process

Aug 2021 - Jan 2022

Sharif University of Technology, <https://github.com/pourmand1376/SP-Homeworks>

Supervisor: Prof. Hamid R. Rabiee

### Machine Learning

Jan 2021 - July 2021

Sharif University of Technology, <https://github.com/pourmand1376/ML-projects>

Supervisor: Dr. M. Rohban

### Statistical Machine Learning

Jan 2021 - July 2021

Sharif University of Technology, <https://github.com/pourmand1376/SML-projects>

Supervisor: Prof. Rabiee

### Digital Image Processing

Jan 2021 - July 2021

Sharif University of Technology, <https://github.com/pourmand1376/DIP-projects>

Supervisor: Prof. Kasaei

### Compiler and Parser

December 2019

Yazd University, <https://github.com/pourmand1376/Parser>

Supervisor: Dr. ZarePour

Description: Implementation of LL(0), LR(0), SLR(1), CLR(1) algorithms in C# from scratch.

### Web Crawler, Indexer and Search Engine Web Application

November 2018

Yazd University, <https://github.com/pourmand1376/Crawler>

Supervisor: Dr. A. Zareh

Description: Web Crawler fetches all sites from the seeds and crawls all other related links. Indexer makes it easy to search from search engine web application written in ASP.NET MVC.

## Industrial Projects

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### Heart Rate Monitor Application (ECG)

July 2019 - Sep 2019

Yazd University

Supervisor: Prof. V. Derhami

Description: An Android app to monitor heart rate and draw its graph in realtime.

### Web application to manage invoice and account

January 2019 – March 2019

Amapardazesh Sepand Inc., Tavoni Etebar Kargaran Bafgh (Samen)

Supervisor: S. Tavakoli

Description: ASP.NET web application to manage invoice for customers, also providing a RESTful API for Android client.

### Car Management for IranKhodro

July 2013 – November 2013

Amapardazesh Sepand Inc., IranKhodro Yazd (4022 Branch - Farashahi)

Supervisor: S. Tavakoli

Description: Win-Forms application to manage parking lots and control the entrance and exit of vehicles, also providing management reports.

## Open Source Contributions

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### Translating ShareX to Persian

July 2019 – August 2019

Link to repo: <https://github.com/pourmand1376/ShareX>

Supervisor (Maintainer): Jaex

## Internships

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### Web and android application for restaurant

July 2018 – October 2018

Amapardazesh Sepand Inc.

Supervisor: S. Tavakoli

Description: RESTful API for Android client written in ASP.NET. Currently, it is **widely used** in Yazd restaurants.

## Teaching Experiences

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### Stochastic Processes for Bioinformatics

Sharif University of Technology

Jan 2022 - Present

Supervisor: Dr. Mohammad H. Rohban

### Linear Algebra

Sharif University of Technology

Aug 2021 - Jan 2022

Supervisor: Prof. Hamid R. Rabiee

### Operating Systems Laboratory

Sharif University of Technology, <https://github.com/Sharif-OS-Lab>

Aug 2021 - Jan 2022

Supervisor: Dr. Beigy

### Principles of Information Technology Strategic Management and Planning

Yazd University

January 2019 – July 2019

Supervisor: Dr. M. Matinkhah

### Fundamentals of Information Technology

Yazd University

September 2018 – January 2019

Supervisor: Dr. M. Matinkhah

### Programming Fundamentals

Yazd University

January 2018 – July 2018

Supervisor: Dr. R. SheykhPour

## Work Experiences

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### Software Developer

Amapardazesh Sepand Inc., <http://www.amapardazesh.com/>

July 2016 – January 2020

Supervisor: S. Tavakoli

Description: I worked four years for Sepand Inc. in different projects. Some of the projects I worked on:

- ◇ Query Optimization in SQL-Server
- ◇ Automatic updating of application using GoogleDrive API
- ◇ Report generator for DataGridView in StimulSoft Report
- ◇ Integrating different devices (POS, Scale, SMS, TelegramBot) with Sepand Application
- ◇ Database Schema Comparer and Upgrader using DACPAC

### English Teacher

Zaban Gostar Institute

July 2017 – January 2018

Supervisor: F. Fatemi

Description: Teaching English to pre-intermediate students for one semester.

## Technical Skills

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**Programming Languages:** Proficient: C#, Python, SQL (T-SQL); Intermediate: Java, MATLAB

**Developer Tools:** VS Code, Jupyter Notebooks, Visual Studio, Android Studio

**Databases:** Proficient in SQL-Server

**Tools:** L<sup>A</sup>T<sub>E</sub>X, Git, Docker, Jekyll

**Operating Systems:** Manjaro (Arch Linux), Kubuntu (Debian), Windows

## Languages

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**English:** TOEFL: 103 (R: 27, L: 26, S:24, W:26) (Equivalent to C1)

ILI Certificate (Equivalent to C2)

**Persian:** Native

**Arabic:** Basic

## Extracurricular

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**Sports:** Mountain climbing, biking, swimming, playing chess!

**Other activities:** Blogging

## References

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### Prof. Hamid R. Rabiee

Professor of Computer Engineering Department, <http://sharif.edu/~rabiee/>

[rabiee@sharif.edu](mailto:rabiee@sharif.edu)

Sharif University of Technology

### Prof. Vali Derhami

Professor of Computer Engineering Department, <https://pws.yazd.ac.ir/derhami/en/>

[vderhami@yazd.ac.ir](mailto:vderhami@yazd.ac.ir)

Yazd University

### Dr. Mojtaba Matinkhah

Assistant professor of Computer Engineering Department, <https://pws.yazd.ac.ir/matinkhah/>

[matinkhah@yazd.ac.ir](mailto:matinkhah@yazd.ac.ir)

Yazd University

### Dr. Jamal ZarePour

Assistant professor of Computer Science Department, <https://pws.yazd.ac.ir/jzarepour/>

[zarepourjamal@yazd.ac.ir](mailto:zarepourjamal@yazd.ac.ir)

Yazd University