# Amir Pourmand

Department of Computer Engineering, Sharif University of Technology, Azadi Avenue, Tehran, Iran, 11155-11365

github.com/pourmand1376 thttps://amirpourmand.ir/

#### Research Interests

♦ Deep Learning

♦ Computer Vision

♦ Natural Language Processing  $\diamond$  Reinforcement Learning

#### Education

## 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

GPA: 19.49/20, Units: 102, Affiliation: Governmental leading high school

Yazd, Iran

#### Honors and Awards

- ♦ 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**

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

Jan 2021 - July 2021

November 2018

January 2019 - March 2019

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

**Academic Projects** 

Stochastic Process Aug 2021 - Jan 2022

Sharif University of Technology, https://github.com/pourmand1376/SP-Homeworks Supervisor: Prof. Hamid R. Rabiee

Jan 2021 - July 2021 Machine Learning

Sharif University of Technology, https://github.com/pourmand1376/ML-projects Supervisor: Dr. M. Rohban

Statistical Machine Learning

 $Sharif\ University\ of\ Technology,\ https://github.com/pourmand 1376/SML-projects$ 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

Supervisor: Dr. ZarePour Yazd University, https://github.com/pourmand1376/Parser

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

Web Crawler, Indexer and Search Engine Web Application

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

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

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** 

Translating ShareX to Persian July 2019 - August 2019

Link to repo: https://github.com/pourmand1376/ShareX Supervisor (Maintainer): Jaex

Internships

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

Stochastic Processes for Bioinformatics

Jan 2022 - Present

Aug 2021 - Jan 2022

Supervisor: Dr. Beigy

Supervisor: S. Tavakoli

September 2018 – January 2019

Sharif University of Technology Supervisor: Dr. Mohammad H. Rohban

Description: Designig and grading of Homework #1 and #3

Linear Algebra Aug 2021 - Jan 2022

Sharif University of Technology Supervisor: Prof. Hamid R. Rabiee

Description: Designing and grading of Practical homework #5

**Operating Systems Laboratory** 

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

Description: Teaching sessions and grading of assignments

Principles of Information Technology Strategic Management and Planning January 2019 - July 2019

Yazd University Supervisor: Dr. M. Matinkhah

Description: Designing and grading of homework, Updating course website

Fundamentals of Information Technology

Supervisor: Dr. M. Matinkhah Yazd University

Description: Designing and grading of homework, Updating course website

**Programming Fundamentals** 

January 2018 – July 2018 Supervisor: Dr. R. SheykhPour Yazd University

Description: Teaching once a week, Grading exams, Designing and grading of homework

Work Experiences

Software Developer July 2016 - January 2020

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

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** July 2017 - January 2018

Supervisor: F. Fatemi Zaban Gostar Institute

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

Technical Skills

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: LATEX, Git, Docker, Jekyll

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

Languages

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

ILI Certificate (Equivalent to C2)

Persian: Native Arabic: Basic

Extracurricular

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

Other activities: Blogging

## References

Prof. Hamid R. Rabiee

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

rabiee@sharif.edu

Sharif University of Technology

Prof. Vali Derhami

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

Yazd University

vderhami@yazd.ac.ir

Dr. Mojtaba Matinkhah

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

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

 $Yazd\ University$