Amir Pourmand

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Research Interests

⋄ Deep Learning

♦ Computer Vision

♦ Machine Learning

♦ Reinforcement Learning

Education

Sharif University of Technology

Sep. 2020 - Present

Master of Science in Artificial Intelligence and Robotics

Tehran, Iran

- \diamond GPA: **4/4** or 18.7/20
- ♦ 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: Using real-time object recognition algorithms such as YOLO, we are trying to classify images and also draw a boundary box for detected polyps which is of high importance to experts. We expect to propose a better model to accurately predict polyps (combined project with the Tehran University of Medical Sciences).

Yazd University

Sep. 2016 - Sep. 2020

Bachelor of Science in Computer Engineering

Yazd, Iran

- ♦ GPA: **3.66/4** or 17.47/20, 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

- ♦ 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

Prediction of ETV-Success by interpretable artificial intelligence (XAI)

Jan 2021 - Present Supervisor: Prof. Hamid R. Rabiee Sharif University of Technology, Shiraz University of Medical Sciences

Description: Prediction of ETV using XGBoost

Academic Projects

Jan 2021 - July 2021 Machine Learning

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

Description:

Statistical Machine Learning Jan 2021 - July 2021

Supervisor: Prof. Rabiee

Supervisor: Dr. ZarePour

July 2018 - October 2018

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

Description:

Digital Image Processing Jan 2021 - July 2021

Sharif University of Technology, https://github.com/pourmand1376/DIP-projects Supervisor: Prof. Kasaei

Description:

December 2019 Compiler and Parser

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

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

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

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

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

Linear Algebra Aug 2021 - Present

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

Aug 2021 - Present

Supervisor: Dr. Beigy

January 2018 - July 2018

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

September 2018 – January 2019 Yazd University Supervisor: Dr. M. Matinkhah

Description: Designing and grading of homework, Updating course website

Programming Fundamentals

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/ 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 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, Jekyll

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

Languages

English: Fluent. TOEFL test will be taken on 20 Nov. 2021 - Iran Language Institute Course Completion 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/

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Yazd University

 $Sharif\ University\ of\ Technology$

Prof. Vali Derhami

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

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Dr. Mojtaba Matinkhah

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

Yazd University

Dr. Jamal ZarePour

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Yazd University