





Amir Pourmand

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

✉ pourmand1376@gmail.com ✉ pourmand@ce.sharif.edu  linkedin.com/in/amir-pourmand

 github.com/pourmand1376  https://amirpourmand.ir/  https://aprd.ir/

Research Interests

◇ Deep Learning ◇ Computer Vision ◇ Natural Language Processing

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: Deep Learning (19.4/20), 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 interpretable AI (XAI)
 - ◇ Project Summary: There are tons of projects which have worked on Polyp detection and classification. However, there is not enough attention to enhancing the explainability of these methods. I am working to interpret Yolov5 architecture to understand better why the model predicts something (a 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

- ◇ 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

Automatic Real-time Detection of Brain Anuerysm via YOLOv5

Sharif University of Technology, Tehran University of Medical Sciences

Jun 2022 - Present

Supervisor: Prof. Hamid R. Rabiee

Description: A customized YOLOv5 algorithm is being developed for detecting brain aneurysms in 2.5D CT scans. Besides learning DICOM image format details, I have also changed the network's structure so that multiple images in the same patient are passed to Yolo as one image, therefore allowing the network to use extra information from other images.

Academic Projects

Deep Learning

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

Aug 2021 - Jan 2022

Supervisor: Prof. Hamid Beigy

Stochastic Process

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

Aug 2021 - Jan 2022

Supervisor: Prof. Hamid R. Rabiee

Machine Learning

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

Jan 2021 - July 2021

Supervisor: Dr. M. Rohban

Statistical Machine Learning

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

Jan 2021 - July 2021

Supervisor: Prof. Rabiee

Digital Image Processing

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

Jan 2021 - July 2021

Supervisor: Prof. Kasaei

Compiler and Parser

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

December 2019

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

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

November 2018

Supervisor: Dr. A. Zareh

Description: Web Crawler fetches all sites from the seeds and crawls all other related links. The indexer prepares the data for immediate search from the search engine web application.

Industrial Projects

Heart Rate Monitor Application (ECG)

Yazd University

July 2019 - Sep 2019

Supervisor: Prof. V. Derhami

Description: The app receives data via Bluetooth from a wireless ECG device and displays it as a graph in real time. Data was sometimes distorted in the middle of this application, so showing it consistently was a challenge.

Web application to manage invoice and account

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

January 2019 – March 2019

Supervisor: S. Tavakoli

Description: This web application provides a RESTful API for Android clients as well as ASP.NET web application to show customers how much they owe the company.

Car Management for IranKhodro

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

July 2013 – November 2013

Supervisor: S. Tavakoli

Description: My first encounter with any programming language was with this Windows-forms application that managed parking lots, controlled vehicle entrance and exit, and generated management reports.

Open Source Contributions

Open source Crawler for Persian websites

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

July 2022

Maintainer: Me

Some Contributions to YOLOv5

Link to repo: <https://github.com/ultralytics/yolov5>

July 2022

Maintainer: Glenn Jocher

Docker Support for al-folio

Link to repo: <https://github.com/alshedivat/al-folio>

June 2022

Maintainer: Al-Shedivat

Translating ShareX to Persian

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

July 2019 – August 2019

Maintainer: Jaex

Internships

Web application for restaurant

Amapardazesh Sepand Inc.

July 2018 – October 2018

Supervisor: S. Tavakoli

Description: As well as developing a RESTful API service for Android devices, I built a dashboard (based on ASP.NET) for managers customize the restaurant according to their preferences.

Teaching Experiences

◇ Stochastic Processes for Bioinformatics (Jan 2022 - Present)	Supervisor: Dr. Mohammad H. Rohban
◇ Linear Algebra (Aug 2021 - Jan 2022)	Supervisor: Prof. Hamid R. Rabiee
◇ Operating Systems Laboratory (Aug 2021 - Jan 2022)	Supervisor: Dr. Beigy
◇ Principles of IT Strategic Management & Planning (January 2019 – July 2019)	Supervisor: Dr. M. Matinkhah
◇ Fundamentals of Information Technology (September 2018 – January 2019)	Supervisor: Dr. M. Matinkhah
◇ Programming Fundamentals (January 2018 –July 2018)	Supervisor: Dr. R. SheykhPour

Work Experiences

Software Developer

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

July 2016 – January 2020

Supervisor: S. Tavakoli

Description: The projects I worked on during my four years with Sepand Inc. were as follows:

- ◇ 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: I taught English to pre-intermediate students for a semester.

Technical Skills

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

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

Databases: Proficient in SQL-Server, Familiarity with Mongo-Db

Tools: L^AT_EX, Git, Docker, Jekyll

Operating Systems: Manjaro (Arch Linux), Kubuntu (Debian), Fedora (KDE spin), 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/>

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

Yazd University

Dr. Jamal ZarePour

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

zarepourjamal@yazd.ac.ir

Yazd University