# Amir Pourmand

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#### About Me

After working as a Full-Stack .Net Developer, I made a decision to enter the field of AI and pursued studies in AI at Sharif University of Technology. Currently, I am looking for job opportunities in the areas of Data Science or MLOps.

# Work Experiences

# Deep Learning Researcher

Jan 2021 - Present

Data Science and Machine Learning Lab, Sharif University of Technology

Supervisor: Hamid R. Rabiee

Description: I successfully completed two laboratory projects, which were:

- ♦ Real-time Automatic Polyp detection and classification using Interpretable AI (XAI)
- $\diamond\,$  Real-time Detection of Brain Aneurysms using Multi-View YOLOv5

## Software Developer

July 2016 – January 2020

Supervisor: S. Tavakoli

Amapardazesh Sepand Inc.

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

- $\diamond$  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

## Technical Skills

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

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

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

Tools: Git, Docker, Jekyll, Hugo, LATEX,

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

#### Education

## Sharif University of Technology

Sep. 2020 - Present

Master of Science in Artificial Intelligence and Robotics

 $Tehran,\ Iran$ 

- ♦ GPA: 18.83/20
- ♦ Relevant courses: Deep Learning, Natural Language Processing, Computer Vision, Machine Learning

# Yazd University

Sep. 2016 - Sep. 2020

Bachelor of Science in Computer Engineering

Yazd, Iran

- ♦ GPA: 17.47/20
- Relevant courses: Intelligent and Expert Systems, Algorithms and Data Structures, Principles of Database Design, Foundations of Information Retrieval and Web Search

#### Internships

#### Web application for restaurant

July 2018 - October 2018

Amapardazesh Sepand Inc.

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 to customize the restaurant according to their preferences.

# **Industrial Projects**

## Heart Rate Monitor Application (ECG)

July 2019 - Sep 2019

Yazd University Supervisor: Prof. V. Derhami

Description: The app receives real-time data from a wireless ECG device via Bluetooth and displays it as a graph. However, some of the data was distorted or lost, making it difficult to consistently display it.

## Web application to manage invoice and account

 $January\ 2019-March\ 2019$ 

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

Supervisor: S. Tavakoli

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

## Car Management for IranKhodro

July 2013 - November 2013

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

Supervisor: S. Tavakoli

Jan 2021 - July 2021

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.

# **Academic Projects**

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

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

Web Crawler, Indexer and Search Engine Web Application

November 2018

Yazd University, https://github.com/pourmand1376/Crawler Supervisor: Dr. A. Zareh

**Open Source Contributions** 

Contributions to YOLOv5

Link to repo: https://github.com/ultralytics/yolov5, #9059, #8694, #8766 Maintainer: Glenn Jocher

Contributions to al-folio June 2022

Link to repo: https://github.com/alshedivat/al-folio Maintainer: Al-Shedivat

Open source Crawler for Persian websites

July 2022

Link to repo: https://github.com/pourmand1376/PersianCrawler Maintainer: Me

Translating ShareX to Persian (Link)

July 2019 – August 2019

Link to repo: https://github.com/ShareX/ShareX Maintainer: Jaex

#### Honors and Awards

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

## To Be Submitted Papers

# Real-time Detection of Brain Aneurysm via Multi-View YOLOv5

Jun 2022 - Present

Sharif University of Technology, Tehran University of Medical Sciences

Supervisor: Prof. Hamid R. Rabiee

Description: Our project involved customizing the YOLOv5 algorithm to detect brain aneurysms in 2.5D CT scans. The network structure was modified to accept multiple images of the same patient as a single input, which helped the network to make better use of available information.

## 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 (see amirpourmand.ir/blog and aprd.ir)