





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 ML Engineer or Data Engineer (or perhaps Data Scientist).

Work Experiences

Deep Learning Researcher

Jan 2021 – Present

Data Science and Machine Learning Lab, Sharif University of Technology

Supervisor: Hamid R. Rabiee

- ◇ Real-time Automatic Polyp detection and classification using Interpretable AI (XAI): The purpose of this work is to enhance the YOLO algorithm's performance in handling labeled and unlabeled data using a semi-supervised learning framework. The study proposes an innovative approach that integrates semi-supervised learning and interpretability to improve the performance and transparency of the YOLO algorithm. To achieve this, pseudo-labeling is employed for semi-supervised learning, and the PyTorch-GradCAM library is adapted to work with YOLOv5, making it interpretable.
- ◇ Real-time Detection of Brain Aneurysms using Multi-View YOLOv5: 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.

Software Developer

July 2016 – January 2020

Amapardazesh Sepand Inc.

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

Technical Skills

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

Data Science Libraries: PyTorch, Pandas, Numpy, OpenCV, scikit-learn, Matplotlib, Scrapy

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, L^AT_EX,

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 and RESTful API 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

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

Natural Language Processing

Jan 2022 - July 2022

Sharif University of Technology, <https://github.com/pam-lab>

Supervisor: Ehsaneddin Asgari

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

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

2022

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