# Amir Pourmand

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## Work Experiences

**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

**English Teacher**                                                       **July 2017 − January 2018**
*Zaban Gostar Institute*                                                  *Supervisor: F. Fatemi*

Description: I served as an English teacher for pre-intermediate students for one 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**: LaTeX, Git, Docker, Jekyll, Hugo
**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** or 4/4
◇ Relevant courses: Deep Learning (19.4/20), Natural Language Processing (19.4/20),
  Machine Learning (19.5/20), Statistical Machine Learning (19/20),
◇ Master's Project (Supervisor: Prof. Hamid R. Rabiee):
    ◇ Project Title: Real-time automatic Polyp detection and classification using interpretable AI (XAI)
    ◇ Project Summary: The purpose of this paper 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.

**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 (Supervisor: Prof. V. Derhami ):
    ◇ Project Title: A Recommendation System for shopping centers using Apriori Algorithm
    ◇ Project Summary: We analyzed data from an SQL-Server database to find frequent item sets and
      compute metrics such as lift. These insights were then used to suggest products to customers.

## 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*

### Web Crawler, Indexer and Search Engine Web Application
*Yazd University, https://github.com/pourmand1376/Crawler*

**November 2018**
*Supervisor: Dr. A. Zareh*

## Industrial Projects

### Heart Rate Monitor Application (ECG)
*Yazd University*

**July 2019 - Sep 2019**
*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
*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 and an 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

### Contributions to YOLOv5
*Link to repo: https://github.com/ultralytics/yolov5, #9059, #8694, #8766*

**2022**
*Maintainer: Glenn Jocher*

### Contributions to al-folio
*Link to repo: https://github.com/alshedivat/al-folio*

**June 2022**
*Maintainer: Al-Shedivat*

### Open source Crawler for Persian websites
*Link to repo: https://github.com/pourmand1376/PersianCrawler*

**July 2022**
*Maintainer: Me*

### Translating ShareX to Persian (Link)
*Link to repo: https://github.com/ShareX/ShareX*

**July 2019 – August 2019**
*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.

## 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.

## 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 )