# ARYA ARABAN

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#### **EMPLOYMENT**

## Web Developer, Intern

Pasavan Co.

**July 2019 – November 2019** 

This company specialized in mobile app development & web development.

- Learned frontend and backend development using the many various courses and tasks assigned to me.
- · Gained skills for backend development with Laravel (which is a PHP framework that utilizes MVC)

## **Backend Developer**

Pasavan Co.

November 2019 – April 2020

Continuing my work in Pasavan, I was recruited as a backend developer.

- Created various websites such as an energy resources website, and a forum website.
- Was tasked to modify the frontend of websites, as well as assisting in deploying APIs on numerous occasions.

## **Head Teaching Assistant**

**Ferdowsi University of Mashhad** 

**January 2019 – January 2020** 

I was the head TA for the Logical Circuits course at my university

- It was required of me to teach students and solve the course problems that they had on a weekly basis
- supervised the work of other TA's, and graded students based on the effort they put into the coursework.

## **Computer Vision Leader**

**FUM Robotics & Computer lab** 

**April 2021 - November 2021** 

Worked on the Computer Vision section of a large-scale project to create a real-life ping-pong playing robot.

- Achieved many of the vision tasks that were required for the project using MATLAB. These include tracking the ping-pong ball, obtaining the speed of the ping-pong ball, plotting the trajectory of the ball.
- Supervised and guided students who were accepted to work in the computer vision field of this project.

#### **Data Scientist, Intern**

Wise Intelligent Agents Co.

**July 2021 - September 2021** 

During my time interning for this company, my work was focused mainly on NLP.

- Assisted in the implementation of a query graph generator for answering complex questions in a Persian knowledge base called Farsbase.
- Given a large dataset (>13GB) of Persian news articles, cleansed the data at hand and visualized the data in various manners in order to gather useful information about it.
- Implemented unsupervised learning on the collection of sentences in the news articles by initially tokenizing the sentences using three different text tokenization algorithms, and then applying K-Means.

#### **EDUCATION**

- Graduated from Imam Hossein high school, June 2017, GPA: 3.8
- BSc in Computer Engineering, Ferdowsi University of Mashhad, January 2022, GPA: 3.4
- Notable University Coursework: Artificial Intelligence; Computational Intelligence; Computer Vision;
  Evolutionary Computation; Micro Economics; Databases; Data Mining; Operating Systems; Compiler; Video Game Design; Software Testing
- Notable Courses completed outside of university: Machine Learning by Andrew NG (Coursera); Deep Learning Specialization by Andrew NG (Coursera); PHP with Laravel by Edwin Diaz (Udemy);

### **TECHNICAL EXPERIENCE**

#### **Notable Projects**

- Flappy Bird NeuroEvolution (2020). By mixing the genetics algorithm with feedforward neural networks, I created an AI which masters the Flappy Bird game after a few minutes of training.
- **Predicting Movie Genres** (2021). For this project I was given a dataset which contained many movie overviews and the genres that each of them belongs to. The goal was to be able to predict movies' genres based on only their overview, which I managed to achieve with a high score.

- Unsupervised Learning using Neural Networks (2021). The main goal of this project was to research on how neural networks can be used for clustering data, and then demonstrate the suggested method with code. After some research, I found that one of the best options to achieve this goal was using a special type of neural networks, known as Self-Organizing Maps (AKA Kohonen Maps)
- \* All of the mentioned projects are available on Github

# **Languages and Technologies**

Python; C; Java; C#; PHP; SQL; JavaScript; MATLAB; Dart; Git; Tensorflow; Keras; Pandas; Matplotlib; Unity; Laravel; HTML/CSS; SPARQL; Flutter