Alireza Shafaee

github.com/ailrezashafaee

Personal Profile

As a computer science student at Amirkabir University of Technology, I am passionate about the intersection of art and technology. I constantly explore and discover new ideas in this field, firmly believing that I can enhance the relationship between them. My affinity for math and problem solving further fuels my enthusiasm for machine learning and artificial intelligence. Working as a front-end developer, I acquired a diverse skill set, deepened my expertise, and I furthered my understanding of systems and platforms through hands-on experience on real-world projects.

Education

Amirkabir University of Technology

sep 2019 - current

Bachelor of Science in Computer Science

Tehran, Iran

• Current GPA: 3.72 (17.54)

sep 2016 - may 2019

Tehran. Iran

Diploma of Mathematics

• Final GPA: 3.9 (19.25)

Shahid Beheshti School

Relevant Course (Grade out of 20)

• Artificial Intelligence (17)

- Data Mining (20)
- Database principles (19)
- Numerical Linear Algebra (20)

- Computer Simulation (20)
- Data Structure (18.5)
- Image Processing (17.2)
- Compiler (18.8)

Research Interests

Artificial Intelligence Deep Learning

Natural Processing Language Computer Vision

Game Development Neuroscience

Work Experience

Software Engineer

December 2023 - current

Modiran Vehicle Manufacturing Company

Tehrna, Iran

- * Working in a dynamic team in the development of company websites, learning various design patterns.
- * Gaining valuable experience in working on large-scale projects.

Deep Learning Engineer

August 2023 – November 2023

Medrik Dynamic Technology

Pessac, France

- * Engaged in part-time remote employment as a Deep Learning Engineer.
- * Applied deep learning sequence models to address medical tasks.

Front-end Developer

Sep 2021 - July 2022

Fanavaran Tech

Tehran, Iran

- * I hold the responsibility for building companies websites web pages and management panels.
- * Gained technical engineering skills working on real world projects.

Front End Intern Oct 2019 - June 2019

Yas Academy * Started as a front-end intern, improving soft skills such as effective communication with team members. Tehran, Iran

Teaching Experience

Artificial Intelligence Teaching Assistant

Fall 2022 - Spring 2023

Dr. Mehdi Ghatee

Amirkabir university of Technology

* I was responsible to grade the weekly homeworks of students.

Basic Programming Teaching Assistant

Fall 2022 - Spring 2023

Dr.Zeinab Haji Mohammadi

Amirkabir University of Technology

- * Had to provide programming challenges, triggering student's problem solving and their basic knowledge of Algorithms and Data Structure
- * Was responsible to help students by answering their questions about challenges designed by the teaching assistants team.

Tutoring spring 2023 - current

Private Tutor

- * Conducted one-on-one tutoring sessions in Python, C, and C++ for over 10 students.
- * Designed and delivered customized practice exercises to reinforce programming concepts.
- * Observed the progress of students and offered constructive feedback to improve their comprehension.

Projects

Text-VAE | Python, Tensorflow, Torch

2023

- * Conducted research on generative language models employing Variational Autoencoders (VAE) as part of my bachelor's project.
- * Developed and fine-tuned a generative large language model utilizing Long Short-Term Memory (LSTM), VAE, and various structures and enhancements, including hybrid CNN and Transformer-VAE models.
- * Applied my expertise in natural language processing, incorporating techniques such as word embedding and tokenization.

Fruit Store | Python, Tensorflow, Kaggle

2022

- * Constructed a system for fruit detection and identification of rottenness using a Convolutional Neural Network (CNN) model.
- * Used fruit 360 kaggle dataset containing 131 types of fruit and vegetables for training the detection model.
- * Implemented both models utilizing TensorFlow, using transfer learning specifically for the rottenness detection model.

Persian Spam Email Detector | Python, Numpy

2022

* Implemented using Naive Bayes algorithm.

B minor Compiler $\mid C$

 $\boldsymbol{2021}$

- * Designed a compiler for the b minor language, a simplified C-like language, as part of the compiler course.
- * Utilized C for the compiler design, applying knowledge of the theory of computation, specifically state machine principles, in the development of the semantic analyzer.

Socket Server | C, Pthraeds, Linux

2021

- * Developed a TCP socket server for streamlined communication as part of the Operating System Principles course, using C as programming language.
- * Implemented principles of multithreading and mutex deadlock to ensure the server operates in a non-blocking manner.

Cinema Ticket $\mid C, Git, sQLite$

Dec 2019

* Developed a cinema ticket management system using C and SQLite, incorporating version control through Git for the first time.

Honors

University Entrance Exam: Ranked in the top one percent among all participants nationwide in the 2019.

Technical Skills

Languages: Python, C, C++, JavaScript, SQL, Numpy Development Tools:Vim, VS Code, Google Colab

Technologies/Frameworks: TensorFlow, GitHub, Latex, React, Cmake, Conda, Torch

Language

Toefl IBT (score: 101) 2023