Ali Ranjbari

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Education

School of Electrical and Computer Engineering, University of Tehran — *Tehran, Iran*

B.Sc. In Computer Engineering(Software Engineering Major) — *Sep. 2019 - Aug. 2024*

- **Cum. GPA: 17.13/20 (3.65/4)**, Faculty Average: 15.1/20 (3.02/4)
- On of the best and most prominent universities of Iran (has been nicknamed "The Mother University [of Iran]")

Shahid Ezheie 2 High School — *Tehran, Iran*

Diploma In Mathematics And Physics — *2016 - 2019*

- **GPA: 19.29/20**
- As a part of the National Organization for Development of Exceptional Talents (NODET)

Research Interests

- Natural Language Processing
- Data Analysis
- Software Engineering
- Artificial Intelligence
- Reinforcement Learning
- Machine Learning

Publications

Bias mitigation in Persian offensive language detection — *In Preparation*

Azadeh Shakery, Yadollah Yaghoubzadeh, Ali Humayouni, Emad kebriaei, Ali Ranjbari

Conducting an exploration of various bias mitigation methods involves testing different approaches, such as re-weighting and additional techniques. These methods aim to address and mitigate biases in data or algorithms. By examining the effectiveness of various approaches, we can gain insights into how bias can be reduced or eliminated.

Experience

University Of Tehran — *Tehran, Iran*

Research Assistant — *Jun. 2023 - Present*

- Under the supervision of Professor **Azadeh Shakery**
- Researching about applying different methods of bias mitigation in Persian offensive language detection

Vira Afzar Adan — *Tehran, Iran*

Summer Internship — *Aug. 2022 - Oct. 2022*

- Under the supervision of Professor **Heshaam Faili**
- During my summer internship, I focused on a project that utilized the Transformers library and the ParsBERT model. The project involved developing an application that could input a sentence and a list of words, and output the probability of those words appearing in masked positions. My responsibilities included reading research papers to gain a foundational understanding of natural language processing (NLP) and BERT models. Additionally, I studied PyTorch and the Transformers library to better understand the codebase. My primary goal was to optimize the application's efficiency and reduce its processing time.

University Of Tehran — *Tehran, Iran*

Teaching Assistant — *Oct. 2021 - Jan. 2022*

- Professor: **Mahmoud Reza Hashemi**
- Course: Introduction to Computing Systems and Programming
- Teaching three distinct classes on basic programming in C. The classes cover programming fundamentals, including logic, data types, control structures, functions, and more. Through interactive lessons, exercises, and projects, students gain a solid understanding of C programming and the ability to develop basic programs.

Honors & Awards

2019	**Ranked in Top 1%,** National Organization of Educational Testing (NOET)	*Tehran, Iran*
2016	**3rd place in the Technology section,** Kharazmi Youth Festival	*Isfahan, Iran*
2012	**Black Belt,** Taekwondo	*Isfahan, Iran*
2010	**Silver Medal,** Isfahan Province Taekwondo Championship	*Isfahan, Iran*

Academic Project Highlights

Neural Network Implementation — *Neural Network and Deep Learning*

Implementating models of research papers — *Python, Pytorch, Tensorflow*

Implementing over 10 research papers with PyTorch across various contexts, including CNNs, RNNs, Transformers, Transfer Learning and ...

Movie Type Detection — *Artificial Intelligence*

An Movie Genre Classifier With Decision Tree — *Python, Scikit-Learn, TensorFlow*

Classifying movies and TV shows genre using Decision Tree model and random Forrest

Baloot Online shopping site — *Internet Engineering*

An all-inclusive online shopping platform — *Java, Spring Boot, React, Docker, MySQL*

A robust website was developed, utilizing Java Spring Boot for the backend and Node.js React for the frontend and MySQL database for the Database. The implementation incorporates various security technologies, alongside Docker and Git, to ensure a secure and reliable platform.

XV6 Kernel — *Operating System*

XV6 Kernel with additional features — *C and C++*

Improving and adding new features to xv6 kernel like new system calls, synchronization, scheduling and ...

Sudoku Solver — *Artificial Intelligence*

Solving Sudoku game using Generic algorithm — *Python, Matplotlib*

The Sudoku game is tackled using a genetic algorithm, harnessing its capacity to optimize solutions. The algorithm initially initializes the puzzle with random numbers and progressively enhances them by generating offspring and introducing mutations.

Licenses

Mar. 2023 **Machine Learning,** DeepLearning.ai — *Coursera.org*

Oct. 2022 **Natural Language Processing with Attention Models,** DeepLearning.ai — *Coursera.org*

Sep. 2022 **Natural Language Processing with Sequence Models,** DeepLearning.ai — *Coursera.org*

Skills

Programming Languages Python, JAVA, C++, C, Node.js

Data Science Pandas, NumPy, Pytorch, Tensorflow, Scikit-Learn

Front-end React, HTML5, CSS

Back-end Django, Fastapi, REST API, Postgre SQL

DevOps Docker, Docker Compose

Languages

Persian Native

English Fluent (TOEFL scheduled for October 22)

Selected Course Scores

Artificial Intelligence, 19/20(4/4)

Neural Networks and Deep Learning, 17.9/20(4/4)

Advance Programming, 17.79/20(4/4)

Algorithm Design, 17/20 (4/4)

Data Structures, 19.2/20(4/4)

Internet Engineering, 18.7/20 (4/4)

Database Design, 17.9/20(4/4)

Engineering Probability and Statistics, 14.5.7/20 (3/4)