# **DANIYAL FARHANGI**

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Chaptarh

♥ Tehran, IranIn DaniyalFarhangi

#### **EDUCATION**

### Bachelor's Degree In Computer Engineering (See Transcript)

**E** Sep. 2019 - Aug. 2023

University of Tehran (First University Among Universities in Iran and 329th in Global Universities)

**♀** Ira

GPA: 3.88/4 (18.23/20) GPA of last two years: 4/4 Supervisor : Dr. Kazim Fouladi

#### RESEARCH INTERESTS

• Artificial Intelligence

- Machine Learning
- Deep Learning

- Natural Language Processing
- Computer Networking
- Communications

#### **AWARDS & ACHIEVEMENTS**

- Acknowledged as an exceptionally talented student, placing in the top 5% among undergraduates.
- Awarded **Tuition-Waiver** at University of Tehran.
- Ranked **top 1%** in the national university entrance exam (among 150,000 students).

#### RESEARCH EXPERIENCES

# Undergraduate research assistant at the University of Tehran

Jan. 2022 - Jul. 2022
University of Tehran

Under Supervision of Dr. Kazim Fouladi

· Worked on sentiment analysis algorithms such as NB, SVM, LR, CNN, LSTM, CNN-LSTM, and BERT, and evaluating and comparing the performance of these algorithms with each other.

### **TEACHING EXPERIENCES**

### Signals and Systems

Dr. Hossein Aghababa

Feb. 2023 - Jul. 2023 University of Tehran

· Responsibilities: Holding Review Sessions, Designing Course Materials and Exams, Grading Assignments

#### Computer-Aided Digital System Design

Dr. Hossein Aghababa

Feb. 2023 - Jul. 2023
University of Tehran

- Language: Verilog
- · Responsibilities: Holding Review Sessions, Helping Students with Coding, Designing Course Materials and Exams, Grading Assignments

#### **Advanced Programming**

Dr. Zahra Movahedi

Feb. 2022 - Jul. 2022
University of Tehran

- Language: Java
- · Responsibilities: Helping Students with Coding, Grading Projects and Assignments

#### WORK EXPERIENCES

## Research Assistant at the Deep Learning Laboratory of the University of Tehran

Mar. 2023 - Present

Tehran, Iran

Deep Learning Lab

· Working on sentiment analysis on social networks' comments and posts. The project involves scraping social networks' comments related to the "University of Tehran" and building a sentiment analysis system.

### **Machine Learning Intern**

**m** May. 2022 - Aug. 2022

Buyroad - Internship

**?** Tehran, Iran

· Worked on search engines using Elasticsearch and BERT. This research project involves scraping product information, building a search engine with Elasticsearch, building a search engine with BERT algorithm, and evaluating and comparing these two search engines' results. (Source Code)

### **ACADEMIC PROJECTS**

**Text Summarization** 

**iii** Jun. 2023

University of Tehran

· An abstractive Text Summarization fine-tuning on the T5 transformer model on the xsum dataset. (Project link)

Chatbot

**=** Feb. 2023

University of Tehran

• An open-domain generation-based chatbot using large language models such as T<sub>5</sub>, Falcon<sub>7</sub>B, and Llama<sub>7</sub>B on the Reddit dataset. (Project link)

Sentiment Analysis

**i** Jul. 2022

University of Tehran

· A sentiment analysis system that can classify the sentiment of customer comments as positive, negative, or neutral. The project involves scraping Amazon product reviews, building sentiment analysis systems with lots of algorithms, and computing their accuracy. (Project link)

**Machine Translation** 

**m** May. 2022

University of Tehran

· A machine translation system that can translate text from Persian to English and English to Persian using attention mechanism and transformers algorithm. (Project link)

**News Text Classification** 

**#** Feb. 2022

University of Tehran

· A Persian news text classification using BiLSTM algorithm on Hamshahri-News dataset. (Project link)

### **SELECTED COURSE PROJECTS**

#### Finding Lane Lines on the Road

**iii** Jul. 2023

Foundations of Computer Vision

University of Tehran

· A Python implementation for lane detection using the OpenCV library. It uses the Hough Transform algorithm to detect lines in video frames and draw the final lane lines on the original frames. (Project link)

### Cars Parking AI

Jun. 2022

Artificial Intelligence and Expert Systems

University of Tehran

· Used a\* algorithm to automatically find path to control parked cars with AI. (Project link)

### **OS Scheduling Simulation**

Dec. 2021
University of Tehran

Operating Systems

- · Simulated CPU scheduling with FCFS, RR and Preemptive/Non-Preemptive Priority/SFJ algorithms.
- · Used a graphical interface to work with the program and plotted metrics such as waiting, turnaround and response time of CPU simulation (Project link)

### **Bank System**

**iii** Jun. 2020

Advanced Programming

University of Tehran

· This is a Java-based banking system with a GUI developed using JavaFX. It allows users to create accounts, deposit/withdraw money, and view their account information. (Project link)

#### **SKILLS**

#### **AI Professional Skills**

- Python (TensorFlow, PyTorch, Keras, Scikit-Learn, NumPy, Pandas, Matplotlib)
- Machine Learning
- Deep Learning (ANN, CNN, RNN, LSTM, GAN)
- Natural Language Processing (Transformers, LLMs)

### **Programming Skills**

- C++, Java, JavaScript, TypeScript
- Django, Django Rest Framework
- SQL, MongoDB, Redis, ElasticSearch, Kafka

- Web Scraping (Scrapy, Beautifulsoup)
- Docker, Git, Linux (Ubuntu)

### Language Skills:

- Persian (Native)
- English (Fluent)
- Duolingo English Test score (120)

#### Other Skills:

- Methodologies (Agile, Scrum, Waterfall)
- Product Management Tools (Jira, Trello)
- LaTeX, Word, PowerPoint, Excel

#### TRAINED COURSES

#### **Deep Learning**

- University of Tehran

**iii** Jun. 2023

#### Convolutional Neural Networks

- Coursera

Mov. 2021

#### Natural Language Processing with Deep Learning

- Youtube Stanford CS224N

**m** May. 2022

#### Machine Learning, Andrew Ng

- Coursera

**E** Sep. 2021

#### **VOLUNTEER WORKS**

#### IPRIA 2023 Conference Executive Team

**iii** Jan. 2023 - Feb. 2023

• The 6th International Conference on Pattern Recognition and Image Analysis (IPRIA 2023) which was Held in the Department of Computer Engineering, University of Tehran (Certification)

#### REFERENCES

• Dr. Kazim fouladi: kfouladi@ut.ac.ir

• Dr. Hossein Aghababa: aghababa@ut.ac.ir

• Dr. Zahra Movahedi: zmovahedi@ut.ac.ir