# **Amir Mohammad Fakhimi**

Computer Engineering student at Sharif University of Technology

## CONTACTS

- **(**+98) 913 163 6804
- Tehran, Tehran Province, Iran
- in amir-mohammad-fakhimi
- AmirMohammadFakhimi
- www.amfakhimi.com
- amirmohammadfakhimi

## **EDUCATION**

09/2020 - 02/2025 Sharif University of Technology

- Bachelor of Science in Computer Engineering
- GPA: 18.86 / 20 (3.97 / 4.0)

## **SKILLS**

- Python & Java & Swift & C
- PyTorch & Tensorflow
- Hugging Face libraries (Transformers & Datasets & PEFT & Evaluate)
- nltk
- Numpy
- Pandas
- Matplotlib & Plotly
- Front-End (Next.js & React.js & TypeScript)
- Communication & Teamwork
- Table Tennis

## **ABOUT ME**

I'm Amir Mohammad Fakhimi, a **Computer Engineering** student at **Sharif University of Technology** with a focus on AI, particularly **Deep Learning**, **NLP**, and **Computer Vision**. I've worked on AI-driven projects like the <u>Scientia Iranica</u> Referee Recommendation System and research on compositional challenges in Stable Diffusion Models.

Through internships at <u>Rahnema College</u> (front-end development) and <u>Sokhan Al</u> (Automated Speech Recognition), I gained practical experience in software engineering and Al.

## **EXPERIENCES**

#### Sokhan Al

Artificial Intelligence Intern

06/2024 - PRESENT

 As an Al Intern at Sokhan Al, I worked on Automatic Speech Recognition (ASR), fine-tuning models using both public and private Persian datasets. My efforts significantly reduced Word Error Rate (WER), improving the company's ASR system. I also contributed a <u>pull</u> request, which was merged, to Hugging Face's Transformers library.

#### Rahnema College

08/2022 - 11/2022

Software Development Intern

Chosen from nearly 900 participants, I attended a Tapsi-sponsored boot camp, gaining experience in front-end (TypeScript, React.js), back-end (Node.js), Android (Kotlin), and DevOps (Docker, CI/CD). I worked in the front-end team on the FPL project with 5 others.

#### LABRATORIES

# Al-Driven Referee Recommendation System for Scientia Iranica Journal

02/2024 - PRESENT

Prof. Shohreh Kasaei (IP Lab)

 I contributed to an AI project for <u>Scientia Iranica</u>, developing a model to automate referee selection and identify professors' expertise from publications, streamlining the peer-review process.

## Research Survey on Compositional Problems of Stable Diffusion Models

10/2023 - PRESENT

<u>Dr. Mahdieh Soleymani Baghshah</u> (<u>ML Lab</u>) <u>Dr. Mohammad Hossein Rohban (RIML Lab</u>)

 This survey explores solutions to compositional challenges (e.g. object relationships & positional consistency) in Stable Diffusion models.

#### VOLUNTEERINGS

- TAs (Teaching Assistants):
  - Modern Information Retrieval (2 Times)
  - Machine Learning (3 Times)
  - Artificial Intelligence (2 Times)
  - Linear Algebra
  - Engineering Probability and Statistics
  - Database Design (2 Times + 1 Time Head TA)
  - Head of iOS Homework at Mobile Programming
  - Advanced Programming (1 Time + 2 Times Head of a Homework)
  - Fundamentals of Programming (2 Times + 1 Time Head of a Homework)
- Events:
  - Scientific Staff at Rayan Al Global Contest
  - Technical Staff at ICPC (2 times)
  - Frontend Web Developer at 9th WSS (Winter Seminar Series)
  - Frontend Web Developer at Gamein

## **PROJECTS**

- LLMs' Citation Benchmark
  - For the final project of the Spring 2024 NLP course at Sharif University of Technology, we built a system
    to evaluate citations in generative models, experimenting with prompt designs and developing metrics
    for citation accuracy and reliability.
- Llama 3 LoRA Fine-Tuning
  - For the fourth homework of the Spring 2024 NLP course at Sharif University of Technology, we collected a dataset on **gender neutralization** and fine-tuned **Llama 3** using **LoRA**.
- Add Validation for Maximum Sequence Length in Whisper Model
  - Added a validation check to the Whisper model in the Transformers library to ensure label sequence length doesn't exceed the token limit, raising a ValueError if it does. This improves robustness by preventing errors from long sequences. Also added related tests.
- Modern Information Retrieval
  - This was our project for the Modern Information Retrieval course at Sharif University of Technology.

#### COURSES

- Sharif University of Technology:
  - Natural Language Processing (19.8 / 20)
  - Fundamentals of 3D Computer Vision (18.7 / 20)
  - Modern Information Retrieval (20 / 20)
  - Machine Learning (19.6 / 20)
  - Artificial Intelligence (19.6 / 20)
  - Linear Algebra (20 / 20)
  - Engineering Probability and Statistics (20 / 20)
  - Advanced Programming (20 / 20)
  - Fundamentals of Programming (20 / 20)
- Others:
  - Berkeley Large Language Model Agents (Ongoing)
  - Stanford Deep Learning for Computer Vision

#### **HONORS**

- Direct Master's Program Candidate in Artificial Intelligence
- Selected for Table Tennis Team for Students' Sports Olympiad
  - I represented Sharif University of Technology in the 16th National Students' Sports Olympiad as a member of the table tennis team. This experience taught me valuable lessons in dedication, discipline, and time management in achieving success across different areas of life.