





Amir Mohammad Fakhimi

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Education

- [Sharif University of Technology](#)

Tehran, Iran

B.Sc. in Computer Engineering

September 2020 – Present

Supervisor: [Dr. Hamid Beigy](#)

- **GPA:** 18.86 / 20 (3.85 / 4.0)
- **Courses (Grades out of 20):**
 - * Natural Language Processing - 19.8
 - * Fundamentals of 3D Computer Vision - 18.7
 - * Modern Information Retrieval - 20
 - * Machine Learning - 19.6
 - * Artificial Intelligence - 19.6
 - * Linear Algebra - 20
 - * Engineering Probability and Statistics - 20
 - * Advanced Programming - 20
 - * Fundamentals of Programming - 20
- **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)
 - * Mobile Programming (Head of iOS Homework)
 - * Web Programming
 - * Software Testing
 - * Advanced Programming (1 Time + 2 Times Head of a Homework)
 - * Fundamentals of Programming (2 Times + 1 Time Head of a Homework)
 - * Computer Simulation
 - * Computer Networks
 - * Computer Structure and Machine Language

Research Interests

- Computer Vision
- Natural Language Processing (NLP)
- Deep Learning
- Machine Learning

Work Experiences

- **Artificial Intelligence Intern**

[Sokhan AI](#)

Internship

June 2024 - Present

- Focused on Automatic Speech Recognition (ASR) systems, specializing in fine-tuning [Whisper model](#) with public and proprietary Persian datasets.
- Achieved an approximately **10% reduction in Word Error Rate (WER)**, outperforming both the company's previous ASR system and fine-tuned open-source versions of Whisper.
- Contributed a bug-fix [pull request to Hugging Face's Transformers library](#), which was merged, resolving an issue encountered during Whisper model fine-tuning that was consistent with similar reported issues.

- **Software Development Intern**

[Rahnema College](#)

Internship

August 2022 - November 2022

- Selected from nearly **900 participants** for this Tapsi-sponsored boot camp.
- Gained experience in **Front-End** (TypeScript, React.js), **Back-End** (Node.js), **Android Development** (Kotlin), and **DevOps** (Docker, CI/CD).
- Worked as part of the front-end team on the [FPL project](#) alongside five other team members.

Research Experiences

- **AI-Driven Referee Recommendation System for [Scientia Iranica Journal](#)** Sharif University of Technology
Supervisor: [Prof. Shohreh Kasaei \(IP Lab\)](#) February 2024 - Present
 - Contributing to an AI project for [Scientia Iranica](#), a journal of Sharif University of Technology.
 - Developing an AI model to **automate referee selection** for submitted articles, streamlining the peer-review process.
 - Designed an AI-based system to identify professors' expertise based on their published papers.
- **Research Survey on Compositional Problems of Stable Diffusion Models** Sharif University of Technology
Supervisors: [Dr. Mahdieh Soleymani Baghshah \(ML Lab\)](#) and [Dr. Mohammad Hossein Rohban \(RIML Lab\)](#) October 2023 - Present
 - Conducting a research survey on methods to address compositional challenges (e.g., object relationships and positional consistency) in stable diffusion models.

Highlighted Projects

- **LLMs' Citation Benchmark** July 2024 - August 2024
Sharif University of Technology
 - Final project for the Natural Language Processing course.
 - Built a system to **evaluate citation accuracy** in LLMs.
 - Experimented with multiple **prompt designs** to improve citation precision.
 - **Developed new metrics** to assess citation reliability.
- **[Llama 3 LoRA Fine-Tuning](#)** July 2024 - August 2024
Sharif University of Technology
 - Completed as the final homework for the Natural Language Processing course.
 - Created a [dataset](#) focused on gender-neutralization.
 - Performed **LoRA** fine-tuning on **Llama 3** with the gender-neutral dataset.
- **[Add Validation for Maximum Sequence Length in Whisper Model](#)** August 2024 - September 2024
Sokhan AI
 - Introduced a validation check for the [Whisper model in Transformers library](#) to ensure label sequence length does not exceed maximum token length.
 - Enhanced model robustness and maintained consistent input dimensions.
 - Implemented tests to verify the validation mechanism.
- **[Modern Information Retrieval](#)** February 2022 - August 2023
Sharif University of Technology
 - Comprehensive project for Modern Information Retrieval at Sharif University of Technology, completed in three phases.
 - **Phase 1:** Implemented retrieval algorithms (Vector Spaces, Okapi BM25) and data compression, then evaluated them.
 - **Phase 2:** Added classification methods (e.g., neural networks, language models) and enhanced the search engine with evaluations.
 - **Phase 3:** Developed a web crawler for [semanticscholar.org](#), implemented personalized PageRank, author ranking, a recommender system, and designed a user interface for the search engine named **Amoogle**.

Honors and Awards

- **Direct Master's Program Candidate** in Artificial Intelligence, Sharif University of Technology – *Highly competitive program for top-performing students* (2023)
- **Selected Athlete**, Sharif University of Technology Table Tennis Team, 16th National Students' Sports Olympiad (2024)

Volunteering Experiences

- **Events at Sharif University of Technology:**
 - **Scientific Staff** - [Rayan AI Global Contest](#) (2024): Focused on Anomaly Detection.
 - **Technical Staff** - [Gamein](#) (2024): Front-End Web Developer.
 - **Technical Staff** - She'r ta Code (2024): Front-End Web Developer.
 - **Technical Staff** - [ICPC](#) Asian Regional, Tehran Site (2023, 2022): Supported technical operations.
 - **Technical Staff** - [Winter Seminar Series \(WSS\)](#) (2023): Front-End Web Developer.
 - **Technical Staff** - [CodoCodile](#) (2023): Front-End Web Developer.
 - **Media Staff** - [League of Coders \(LoC\)](#) (2022): Managed media coverage.
 - **Executive Staff** - [HardWar](#) (2022): Supported event execution.
 - **Branding Staff** - [SharifGame](#) (2021): Assisted in branding initiatives.
 - **Presenter** - Linux & Computer Workshops, [Saboo](#) (2021): Led workshop presentations.
- **Introduction to Programming and Algorithms: A Collaborative High School Outreach Course**
 - Developed in collaboration with **Sharif University of Technology** and **Quera** to introduce high school students to programming and algorithms.
 - Engaged around **2000 students**, supported by a team of approximately **100 teaching staff**.
 - Contributed by writing textbooks, creating practical exercises, and mentoring a student group to enhance their learning.
 - Recognized as **one of the top mentors** for dedication and impactful contributions to student learning.

Other Courses

- [Berkeley Large Language Model Agents](#) – Ongoing
- [Stanford Deep Learning for Computer Vision](#)

Technical Skills

- **Programming Languages:** Python, JavaScript, TypeScript, Java, Swift, R, C, SQL, Verilog
- **Python Libraries for AI and Data Science:** PyTorch, TensorFlow, Hugging Face Libraries (Transformers, Datasets, PEFT, Evaluate), OpenCV, scikit-learn, NLTK, NumPy, Pandas, Matplotlib, Plotly
- **Web Technologies:**
 - **Front-End:** Next.js, React.js
 - **Back-End:** Node.js, FastAPI, PostgreSQL, Redis