





# Amir Mohammad Fakhimi

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 [AmirMohammadFakhimi](https://github.com/AmirMohammadFakhimi)  [amirmohammadfakhimi](https://medium.com/@amirmohammadfakhimi)  [www.amfakhimi.com](https://www.amfakhimi.com) 📍 Tehran, Iran

## Education

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### • [Sharif University of Technology](#)

Tehran, Iran

*B.Sc. in Computer Engineering*

*September 2020 – Present*

*Supervisor: [Dr. Hamid Beigy](#)*

- **GPA:** 18.86 / 20 (3.97 / 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

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

## Work Experiences

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### • **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

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- **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

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- **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

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- **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

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- **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

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

## Technical Skills

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- **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