MEHDI **EIDI**

M.Sc. Student & Researcher in Software Engineering
Department of Computer Engineering, Sharif University of Technology, Tehran, Iran
eidim@acm.org | Homepage | Google Scholar | GitHub | ORCID | LinkedIn

Research Interests

Model-Driven Engineering • AI for Software Engineering • Empirical Software Engineering • Automated Software Engineering • Software Architecture.

Education

M.Sc. in Software Engineering, *Sharif University of Technology* — Sep 2024 - Feb 2027 Exp. — Tehran, Iran

- **GPA:** 19.5/20 | **Ranked 2nd by GPA**
- **Thesis:** AI-Assisted Model-Driven Methodology for Serverless Software Development | Website
- **Supervisor:** Dr. Raman Ramsin
- **Selected coursework:** Software Architecture (20/20), Patterns in Software Engineering (20/20), Software Development Methodologies (20/20), Requirements Engineering (19.2/20), Software Testing (19/20).

B.Sc. in Computer Engineering, *Urmia University* — Sep 2019 - Aug 2023 — Urmia, Iran

- **GPA:** 18.73/20 | **Ranked 3rd by GPA**
- **Industry collaboration (thesis):** Designed, implemented, and deployed a microservices-based call-center management system that remains in active production use.
- **Selected coursework:** Machine Learning (20/20), Software Engineering (20/20), Systems Analysis & Design (20/20), Data Mining (20/20), Cloud Computing (20/20).

Research Experience

M.Sc. Researcher, *Methodology Engineering Lab* — Dec 2024 - Present

- **Project:** AI-Assisted Model-Driven Methodology for Serverless Software Development Project Overview | GitHub
- **Research Goal:** To investigate how model-driven engineering and LLMs can enable systematic, automated serverless software development from requirements to implementation.
- **Research Outcomes:** Developed the MODRISS methodology, integrating a development process, DSLs for domain and serverless architecture modeling, automated model transformations, and code generation.
- **LLM4MDE:** Developed an LLM-based modeling assistant for generating and refining structured models from natural-language requirements.
- **Evaluation:** Evaluated MODRISS through industrial case studies and a criteria-based assessment.

Publications

[1] **Eidi, M.**, & Ramsin, R. (2026). Model-Driven Approaches for Serverless Software Development: Evaluation and Future Directions. *Proceedings of the 14th International Conference on Model-Based Software and Systems Engineering (MODELSWARD'26)*, 560-567. doi:10.5220/0014634200004058

[2] **Eidi, M.**, & Ramsin, R. MODRISS: AI-Assisted Model-Driven Methodology for Serverless Software Development. *Manuscript in preparation*.

Conference Presentations

Presented paper **[1]** at the *14th International Conference on Model-Based Software and Systems Engineering (MODELSWARD'26)*, Marbella, Spain, March 9, 2026.

Academic Distinctions

- **Ranked 63rd of ~20,000 candidates** in the National M.Sc. Entrance Examination (**top 0.3%**).
- **Ranked 2nd by GPA**, M.Sc. Software Engineering, Sharif University of Technology.
- **Ranked 3rd by GPA**, B.Sc. Computer Engineering, Urmia University.

Teaching Experience

Teaching Assistant, *Sharif University of Technology*

- Agile Software Development (2 semesters) — Fall 2024, Fall 2025
- Object-Oriented Systems Design — Spring 2025

Teaching Assistant, *Urmia University*

- Data Structures & Algorithms — Spring 2022
- Advanced Programming — Fall 2022
- Fundamentals of Programming — Fall 2021

Go Workshop Instructor, *Urmia University* — Spring 2021

- Taught Go programming to university students through five hands-on workshop sessions.

Industry Experience

Backend Software Engineer, Imenaria — Jun 2022 - Sep 2024

- Designed and implemented RESTful and gRPC services for a video-on-demand platform and engineered a scalable video-transcoding subsystem for high-volume media processing.
- Developed typo-tolerant search and executed a large data migration from MongoDB to Postgres.
- Built an automated NGINX configuration generator and a real-time chat subsystem.

Software Architect & Backend Engineer, HUB — Feb 2023 - Jul 2023

B.Sc. thesis conducted in collaboration with industry

- Designed, implemented, and deployed a microservices-based call-center management system.
- Performed architectural and detailed design using UML.
- Optimized a critical API through batch processing, reducing latency from ~10 seconds to 200 ms.
- Established a CI/CD pipeline and deployment infrastructure, and containerized services.

Open-Source Projects

Carify: Machine learning project predicting used-car prices based on vehicle condition. GitHub
Offliner: Concurrent web crawler that creates offline mirrors of websites. GitHub
Tunelo: Proxy that tunnels UDP/WireGuard traffic over WebSocket or TCP. GitHub
GoShell: Unix-like shell with pipelines, I/O redirection, and background jobs. GitHub

Technical Skills

Model-Driven Engineering: EMF, Eclipse Epsilon, UML, OCL, BPMN, SPEM, Sirius
Programming: Java, Go, Python
DevOps & Cloud: AWS, Docker, Git, Linux
Data: PostgreSQL, Redis, SQL, MongoDB, RabbitMQ
Business Intelligence: Power BI

Languages

English: Full professional proficiency **Turkish:** Native **Azerbaijani:** Native **Persian:** Native

References

Raman Ramsin, Ph.D. Email | Homepage
Associate Professor, Department of Computer Engineering, Sharif University of Technology

Jafar Habibi, Ph.D. Email | Homepage
Full Professor, Department of Computer Engineering, Sharif University of Technology