

Fatemeh Mirzaei Kalani

 Github |  LinkedIn |  Personal website |  email

Computer Engineering graduate interested in IoT, computer networks, and security. Experienced in developing networked and real-time systems.

EDUCATION

2021 - 2025 Bachelor in Computer Engineering, **Shahid Beheshti University, Iran**
GPA: 17.89 / 20

EXPERIENCE

Embedded Systems Intern Jul 2024 - Sep 2024

Used Home Assistant OS and MQTT on a Raspberry Pi to integrate multiple smart home devices from different manufacturers.

Teaching Assistant Sep 2022 - Jan 2025

Assisted university students with their assignments and projects in the following courses: Cybersecurity, IoT, Microprocessors, Embedded Systems, Operating Systems, Compiler Design.

Machine Learning Intern Jun 2023 - Aug 2023

Implemented multiple machine learning methods for predicting taxi demand.

PROJECTS

LLVM-based C Compiler [Link](#)

Developed a compiler for the C language using C++ and LLVM, including lexical analysis, parsing and semantic analysis.

Real-Time Security Event Monitoring [Link](#)

Implemented a real-time security monitoring platform using FastAPI, Redis, Docker, and WebSockets, enabling event processing and instant alert delivery with a scalable architecture.

Browser Fingerprinting Detection (Bachelor's Thesis) [Link](#)

Conducted research on detecting browser fingerprinting techniques by analyzing both static and dynamic fingerprinting methods.

SKILLS

Frameworks	FastAPI, Django
Databases	PostgreSQL, Redis
Networking	MQTT, Wireshark, Packet Tracer
IoT & Embedded	Raspberry Pi, Home Assistant, ThingsBoard
Systems & Tools	Linux, Docker, Git
Machine Learning	PyTorch

LANGUAGES

English C1
German A2