



Sajjad Fani

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Research Interests

- IoT & Edge Computing Systems
- Software Engineering for Distributed Systems
- Cloud Computing & DevOps/MLOps
- Applied Machine Learning for IoT & Systems

Education

Islamic Azad University <i>M.Sc. Artificial Intelligence</i>	2025 - present
Quchan University <i>B.Sc. Computer Engineering</i>	2020 - 2025 GPA: 16.34 / 20

Teaching Experience

Quchan University

- **Basic Programming (C)**
Spring 2022
[Instructor: Dr.Malihe Javidi](#)
- **Advanced Programming (C++)**
Autumn 2023
[Instructor: Dr.Zahra Eskandari](#)

Islamic Azad University

- **Machine Learning**
Autumn 2025
[Instructor: Dr.Yahya Forghani](#)

Responsibilities included preparing exercises, grading, holding Q&A sessions, and mentoring small student groups.

Relevant Coursework

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| • Fundamentals of Internet of Things (20.0/20) | • Operating Systems Lab (20.0/20) |
| • Network Security (18.5/20) | • AI Fundamentals & Applications (19.2/20) |
| • Web Programming (20.0/20) | • Principles of Compiler Design (17.7/20) |
| • Software Engineering I (20.0/20) | • Computer Networks Lab (19.5/20) |

Technical Skills

Programming: C/C++, Python, Javascript, Go, Dart
Backend: Django, Django Rest Framework, FastAPI, Flask, Node/Express
Frontend: React.js, Flutter
Cloud/DevOps: Docker, Docker Compose, Gitlab CI/CD, Linux
Data & Messaging: PostgreSQL, MySQL, Redis, RabbitMQ, Celery
Artificial Intelligence: Machine Learning, Deep Learning

Professional Experience

Software Engineer (Backend/DevOps Lead)

Medical Toxicology, Tucson, AZ (Aug 2023 – present)

- Lead a technology team delivering AI-enabled toxicology services; own backend architecture, deployment, and reliability.
- Built secure and scalable APIs and asynchronous pipelines using Django/DRF, Celery, Redis, and PostgreSQL.
- Standardized containerized deployments with Docker and CI/CD to improve reproducibility and release speed.

Software Engineer (Freelance)

Mashhad, Iran (Feb 2022 – Mar 2024)

- Designed and shipped backend systems with Django/DRF, Celery, Redis, PostgreSQL; emphasized maintainable and secure architectures.
- Collaborated with Flutter/React teams to integrate backend services into mobile and web clients

Selected Projects

FaceCheckIn

IoT-enabled attendance & affect-logging system (Raspberry Pi + Mobile + Backend)

Course Project (Fundamentals of IoT) | Team of 4 | Role: Backend & Integration Lead | Top-rated project (full marks)

- Designed and implemented the backend using Django (Python) with PostgreSQL for identity, check-in, and analytics data storage.
- Implemented JWT-based authentication, role-based access control (RBAC), and HTTPS for protected API access.
- Built edge-to-cloud pipeline via REST APIs; planned migration to WebSockets for near real-time updates.
- Inference workflow: captured 6 images per user on Raspberry Pi; identity recognition using a primary frame; emotion recognition over the 6-frame set; stored outputs for later analysis (not user-facing).
- Measured end-to-end response times in a local prototype setup (laptop-hosted backend): ~1s identity recognition; ~2–4s emotion inference.
- Fully containerized the system with Docker for reproducible execution and integration testing.

Scheduling University Classes

Scheduling & admin dashboard for Quchan University

- Automated lesson-to-class assignment based on capacities and constraints; provided admin overrides and search
- Implemented Excel import for bulk data management.
- Tech: Django, PostgreSQL, Docker, React/JavaScript.

MedSpeech Service

Medical voice-to-text + analytics features

- Backend service to upload medical voice, generate transcripts, and run additional processing features.
- Tech: Django/DRF, Celery, Redis, PostgreSQL; integrated external AI APIs (OpenAI/Gemini/Groq).

Languages

Persian - Native

English - Advanced (TOEFL planned: May 2026)