Alireza Fadaei

FULL-STACK SOFTWARE ENGINEER | JAVA • REACT • APPLICATION ARCHITECTURE • AGENTIC AI

Oulu, Finland • alizfadaei98@gmail.com • arfadaei.ir • github.com/aliz-f

LinkedIn: linkedin.com/in/aliz-f • Finland residence permit valid through 2028

PROFILE

Software engineer with 4+ years of experience across enterprise security platforms, full-stack business applications and AI-enabled products. Hands-on with **React** interfaces, **Python backend services**, **Java endpoint applications**, distributed architecture, testing and CI/CD. Experienced in technical design, cross-service integration and leading delivery across teams.

TECHNICAL SKILLS

Languages & frontend: **Java** (Windows/Linux clients), Python, **React.js**, JavaScript, HTML5, CSS3

Backend & APIs: **FastAPI**, Django, Flask, **REST APIs**, Node.js, Pydantic, service interfaces, data validation

Application architecture: **Distributed systems**, **modular service design**, client-server architecture, secure communications, queue-based processing, API/data contracts

AI-assisted engineering: **LLM APIs**, **agentic workflows**, AI coding agents (Codex, Claude Code), web crawling, data enrichment

Testing & delivery: Test strategy, service and **integration testing**, **GitLab CI/CD** (Fardaad), **GitHub Actions** (recent projects), Git, code review, Agile team coordination

Data, DevOps & security: **PostgreSQL**, SQL, Redis, **Docker**, **Docker** Compose, Linux, Nginx, CVE data enrichment, vulnerability and patch management

PROFESSIONAL EXPERIENCE

Full-Stack Software Engineer | Aminyx (Remote) 2026

AI-enabled B2B trade SaaS helping businesses identify companies, assess trust signals and support international trade processes.

- Built **React** user workflows backed by **Python/FastAPI** REST services, connecting frontend behaviour, data validation and business rules.
- Developed **agentic AI** features for company sourcing and multi-layer trust assessment, integrating **LLM-supported** steps into business workflows.
- Designed a **Dockerised** company/contact enrichment pipeline using web crawling, **Pydantic** validation and optional LLM-based resolution of ambiguous records; added checkpoints to resume interrupted processing.
- Defined service boundaries and **API/data contracts** so independent enrichment components could exchange structured, validated results.

Full-Stack Software Developer | Technical Team Lead | Fardaad (ISTT) 2022–2024

Enterprise patch and vulnerability management for public-sector networks. A security laboratory verified and digitally signed updates; each organisation's internal server securely retrieved approved packages from repositories, distributed them to endpoint agents and returned reports through a hierarchical system.

- Co-designed the **distributed architecture** connecting the security laboratory, central repositories, on-premises servers and **Java endpoint agents**, including encrypted communication and reporting flows.
- Developed **Java agents** for **Windows and Linux** devices to scan software and security status, receive assignments, install applicable packages and report results; Windows agents also handled Microsoft security updates.
- Built **Python server services** and **queue-based workflows** for package coordination, repository synchronisation, vulnerability-to-patch matching and multi-level report aggregation.
- Created web crawlers to enrich **CVE records** and implemented matching policies; developed **JavaScript/HTML/CSS** dashboards for security findings, update decisions and deployment status.
- Designed **service and integration testing** processes and **GitLab CI/CD pipelines** for the security laboratory, repositories and organisation servers; coordinated Agile development and cross-service integration.

EARLIER ENGINEERING ROLES & PROJECTS

Backend Developer & Systems Administrator | MetaMenu 2021–2022

Startup platform for restaurants, combining AR/3D digital menus with ordering, delivery and accounting workflows.

- Developed **backend features** supporting menu content and connected restaurant operations, including order and delivery workflows.
- Managed **cloud-hosted application infrastructure** and deployment support, helping maintain the product during its customer-acquisition stage.

Full-Stack Research Software Developer | BrassicaLNC 2021–2022

Searchable scientific database making curated plant-gene records available for research and download.

- Built **React** search/data-exploration views, **Django REST APIs** and data models covering 1,852 curated lncRNAs from 2,361 RNA-Seq libraries.
- Connected **frontend, API and database** layers and supported hosting, server administration and day-to-day operation of the research platform.

Backend Developer | Piranest Team 2021–2022

- Developed marketplace backend logic connecting travellers with local tour guides, including tour **reservation and booking workflows**.

Python Web Developer | Fapsco Project 2020

- Developed and maintained **Flask**-based website functionality and internal tools for customer-facing services.

CUSTOMER-DEPLOYED PRODUCTS

CNC Process Management System | **View project**

2025 • Commercial product in active use by a manufacturing customer

- Designed a **full-stack operations system** bringing CNC production stages, inventory and workstation status into a shared workflow.
- **Owned requirements**, architecture, frontend/backend implementation, data modelling and deployment. Demo: erp.arfadaei.ir

Psychological Clinic CRM | **View project**

2026 • Commercial product in active use by a clinic customer

- Built a **clinic management system** connecting appointments, clinician schedules, patient records, sessions and billing.
- Delivered the interfaces, **backend business logic**, database model and deployment for day-to-day clinic use. Demo: psy.arfadaei.ir

OPTIMIZATION RESEARCH PROJECT

TV Advertisement Scheduling Optimization | Research collaboration, 2024

- Contributed Python components to a master's thesis research project at Sharif University of Technology, Tehran: synthetic scheduling data, MILP (CPLEX/DOcplex) and metaheuristics (NSGA-II, genetic algorithms, simulated annealing, tabu search).

  Repositories: Data generator | MILP / CPLEX | Metaheuristics

TEACHING & KNOWLEDGE SHARING

Programming Instructor | Iran TVTO 2024–2026

- Delivered practical programming and software-development training, guiding learners through implementing working projects and explaining engineering choices.

EDUCATION

M.Sc. Software Engineering and Information Systems | University of Oulu, Finland | 2026–Present

M.Sc. Software Engineering | Azad University, Najafabad Branch | 2022–2025

B.Sc. Computer Engineering | University of Isfahan | 2017–2022

PUBLICATION

Federated deep-learning intrusion detection | Peer-reviewed paper, The Journal of Supercomputing (2026). DOI

LANGUAGES

English: Professional proficiency (IELTS Academic 7.5) | **Finnish:** Beginner (currently studying)