

ERSEL SEYIT

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PROFESSIONAL EXPERIENCE

Research Engineer, UpcoMinds

Feb 2025 – Aug 2025

Brussels, Belgium

- Designed parallel training system partitioning datasets across Kubernetes nodes for concurrent processing, significantly reducing AI model training time
- Designed and deployed RESTful API backend using Java, Spring Boot, and PostgreSQL on Kubernetes, managing containerized service deployment, ingress, and database configuration for AI/ML pipeline
- Automated CI/CD pipeline with GitLab CI; secured API endpoints with Keycloak OAuth2 authentication and RBAC

Freelance Software Developer

Apr 2024 – Dec 2024

Istanbul, Turkey (Remote)

- Built cross-platform medical imaging application in Flutter with custom TensorFlow models and REST API backend, achieving 95% diagnosis accuracy across 10,000+ images
- Developed and delivered financial planning application with Python backend, integrating OpenAI GPT API for natural language budget analysis and personalized recommendations

Software Developer, Amani AI

Jul 2022 – Feb 2023

Istanbul, Turkey

- Implemented OpenCV-based image processing to detect invalidated Turkish IDs, helped automating document fraud detection and reducing manual review workload

EDUCATION

B.Sc. Computer Engineering

2020 – 2024

Yeditepe University, Istanbul

Computer Programming

2018 – 2020

Ege University, Izmir

TECHNICAL SKILLS

Languages: Java, Python, Go, C, TypeScript, SQL

Backend: Spring Boot/Cloud, Microservices, REST API Design | **DevOps:** Kubernetes, Docker, CI/CD, GitLab CI

Databases: PostgreSQL, MySQL, PostGIS, MongoDB, Redis | **Messaging:** RabbitMQ

Monitoring: Prometheus, Grafana, Zipkin, Loki | **Security:** Keycloak, OAuth2, JWT, RBAC

Tools: Git, Linux, Maven, Flutter, TensorFlow | **Testing:** JUnit, Mockito, Integration Testing

KEY PROJECTS

Base Station O&M Platform | Java 21, Spring Boot, Python, Go, C, React, TypeScript, PostgreSQL, MongoDB, Redis, RabbitMQ, Kubernetes, Helm, Prometheus, Grafana, Zipkin

Solo-built telecom operations platform, 10 services, 19 pods, 113K lines of code across 5 languages

- Architected 8 core Java 21 / Spring Boot backend services with API gateway, JWT/RBAC auth, HMAC service-to-service authentication, and per-endpoint Redis-backed rate limiting
- Built AI diagnostic engine in Python: Isolation Forest anomaly detection, Bayesian root cause analysis, LSTM traffic forecasting, DBSCAN alarm correlation, 3GPP SON optimization (MLB/MRO/CCO/ES), predictive maintenance, and self-healing with risk-based approval workflows
- Developed edge-to-cloud data pipeline: C11 binary protocol library (CRC-16 CCITT) for MIPS devices, Go bridge with SNMP/MQTT/NETCONF/O-RAN/Modbus adapters, offline metric buffering during cloud outages
- Built React 18 / TypeScript dashboard with WebSocket streaming, real-time monitoring across 100+ metric types, digital twin simulation, and infinite scroll pagination
- Deployed 19 pods on Kubernetes with Helm charts; 4 databases (PostgreSQL, MongoDB, Redis, RabbitMQ); 5 observability components (Prometheus, Grafana, Zipkin, Loki, Promtail); GitHub Actions CI/CD pipeline
- Unit/integration/E2E test coverage with JUnit 5, Mockito, Spring Cloud Contract, Vitest, and Playwright