ERGI ISARAJ

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SKILLS

- Software engineering
- Machine learning/AI
- Cloud & Scalable Systems
- Systems engineering
- Data Mining

WORK EXPERIENCE

ROIads: *Software Engineer — Remote (Full Time)*
May 2024 – Present

- Designed high-throughput AWS backend (Lambda + Step Functions + SQS) handling real-time ad traffic with <10 ms latency.
- Delivered full Infrastructure-as-Code pipelines (AWS CDK/SAM) enabling one-command, version-controlled deployments and smooth CI/CD integrations.
- Built LLM-powered automations with **LangChain/LangGraph** to generate ad creatives and run multi-step compliance checks.
- Implemented observability stack with structured logging, metrics, alerting, and dashboarding (New Relic + CloudWatch).
- Integrated Kafka for reliable event streaming between microservices and system triggers.
- Developed microservices in **Java**, leveraging **SQL** queries for data persistence and reporting.
- Used **Docker** extensively for containerizing Lambda layers and backend modules.
- Pioneered the adoption of retrieval-augmented generation (RAG) modules to assist in ad classification and campaign analysis.

Real Construction: *Software Engineer — Remote (Full Time)*
October 2022 – December 2024

- Engineered secure RBAC platform with FastAPI + PostgreSQL, enforcing fine-grained permissions across all internal tools.
- Automated regulatory compliance via a Python rule-based engine that validates contractor documents against evolving standards.
- Built and deployed containerized services using **Docker**, **Kubernetes**, and **OpenShift** for scalable video ingestion and indexing workflows.
- Managed CI/CD pipelines (GitHub Actions + Docker + self-hosted runners) to streamline deployments and testing.

- Introduced **Spring Boot (Java)** microservices for regulatory document validation, improving processing latency and audit traceability.
- Designed and optimized **SQL** queries for internal reporting and data transformation pipelines.

Freelancer.com: *Software Engineer — Remote*
January 2022 – March 2022

- Delivered end-to-end features on a FastAPI + React stack—designed REST APIs, built responsive UI components, and tuned architecture for scalability.
- Introduced message queueing via Kafka for async task coordination between backend modules.
- Built secure interfaces for an Ethereum wallet explorer prototype, including UI integration with blockchain APIs.
- Contributed **Java** modules for backend services and integrated **SQL** databases for persistent storage.
- Used **Docker** for local development, testing environments, and client delivery.

BMW Group Albania: *Data Intern — Remote (Internship)*
April 2021 – October 2021

- Conducted analysis on vehicle and sales data using Pandas, NumPy, and visualized insights with Matplotlib.
- Built internal dashboards and Python scripts to support ML-based vehicle classification and pricing trends.
- Automated Excel-based processes to improve data turnaround time for business and operations teams.
- Wrote **SQL** queries to extract and join large tables from internal databases.

Ministry of Finances and Economy, Albania: *Data Intern*
February 2020 – October 2020

- Developed internal analytics tools using **Java**, focusing on modular code structure, maintainability, and performance tuning.
- Built data transformation pipelines with Java Streams and Collections API to process and validate financial datasets.
- Wrote **unit-tested** modules using JUnit to ensure robustness and reliability in policy analysis workflows.
- Designed and executed **SQL** queries within Java applications to support real-time financial reporting and projections.

EDUCATION

RWTH || Aachen [October 2020 - September 2025]
Informatik / Computer Science

Relevant Coursework:

- Practical Lab on Python, Java and Haskell
- Theoretical Foundations of Software Systems Engineering
- Introduction to Operating Systems
- Software Project Management
- Agile Software Development
- Introduction into Embedded Systems
- Machine Learning
- Elements of AI
- Introduction to ASR (Automatic Speech Recognition)
- Computer Vision
- Theoretical Foundations of Physical systems
- Communication Engineering 1 & 2