Arman Feili

Software Engineer | AI Platform Engineer

Backend Architecture | Full-Stack Systems | LLM Platforms

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Summary

Software Engineer & AI Platform Engineer and recent MSc in Data Science graduate from Sapienza University of Rome, with 5+ years of hands-on experience delivering full-stack, backend, AI-assisted, and data-intensive platforms. Led an 8-person PC Cube team to deliver a production-ready AI risk analytics platform with MongoDB persistence, 30+ risk metrics, 4 scoring models, LLM workflows, and executive reporting for 4 stakeholder groups. Architected CINECA's multi-tenant agentic AI platform with 12 services, 76 REST endpoints, NL-to-Cypher automation, asynchronous job orchestration, and a 34-tool MCP registry. Previously contributed to ERP infrastructure serving 10,000+ businesses and authored a top-ranked COVID-19/vaccine API serving 10K+ daily requests on RapidAPI.

Technical Skills

- **Backend:** Python, Java, Spring Framework, TypeScript, JavaScript, Node.js, Django REST Framework, FastAPI, Flask, NestJS, Express.js, REST APIs, batch processing, APScheduler.
- **Frontend:** React, Next.js, Angular, Redux, HTML5, CSS3, Sass, component-based UI development.
- **Data Stores & Persistence:** PostgreSQL, Microsoft SQL Server (MSSQL), MongoDB, Redis, Neo4j, Memgraph, Cypher, Liquibase, schema design, indexing, graph data modeling, hash-based de-duplication.
- **AI, LLM & Data Science:** LLM workflows, MCP tool orchestration, NL-to-Cypher automation, PyTorch, TensorFlow, scikit-learn, Pandas, NumPy, NLP, diffusion models, federated learning, model evaluation.
- **Cloud, DevOps & Reliability:** Docker, Kubernetes, AWS EKS, Railway, GitLab, GitHub Actions, CI/CD, Prometheus, Grafana, OpenTelemetry, structured logging, health checks, SonarQube cloud.
- **System Design & Security:** Microservices, multi-tenant SaaS platforms, data pipelines, Auth0, JWT, Keycloak, RBAC, PII scrubbing, scalable distributed systems.
- **Languages:** English: Fluent (IELTS Writing 7, Speaking 7); Italian: (A2); Persian: Native.

Work Experience

Lead Full-Stack Engineer – AI Risk Reporting Platform *Rome, Italy*
PC Cube S.r.l. *Mar 2026 – Jun 2026*

- Led an 8-person full-stack team in a 3-month client-facing engagement, delivering a production-ready AI risk platform for 4 groups using Java, Spring Framework, Angular, Microsoft SQL Server, and Liquibase.
- Engineered scheduled REST API ingestion for 100+ projects and MongoDB persistence across 20+ collections, with hash-based de-duplication for WBS, tasks, timesheets, metrics, and project metadata.
- Delivered 30+ risk metrics, 4 scoring models, daily ingestion batches, batched LLM vision processing, and weekly APScheduler email reports, validating requirements in 12 client meetings.

AI Platform Engineer – Cineca Agentic Platform *Rome, Italy*
CINECA *Jun 2025 – Dec 2025*

- Architected a multi-tenant agentic AI SaaS platform during a 6-month CINECA engineering engagement, integrating 12 Dockerized services, 76 REST endpoints, and PostgreSQL/Redis/Memgraph persistence.
- Developed a 4-phase agent orchestration engine with LLM planning, MCP tool execution, a 34-tool registry, SSE streaming, Redis-backed async jobs, and cancellation support across 17 tool categories.
- Engineered a secure 6-stage NL-to-Cypher pipeline with RBAC, tenant isolation, schema validation, PII scrubbing, rate limits, audit logs, and 3,000+ automated quality checks.

Machine Learning Engineer – Federated ECG Diagnostics *Rome, Italy*
Sapienza University of Rome *Mar 2024 – May 2024*

- Implemented federated learning workflows for 12-lead ECG classification over a 3-month ML engineering project, covering 2 aggregation methods (FedAvg/FedProx), centralized-to-federated data conversion, automated split/train/evaluation pipelines, F1 analysis, and LaTeX reporting (reference paper).

Frontend Engineer – Rahkaran Cloud ERP Core SaaS Platform *Tehran*
System Group *Aug 2020 – Jul 2021*

- Served on one of System Group's main front-end platform teams, building and maintaining 50+ reusable UI components with JavaScript, TypeScript, React, Sass, and Stencil.js for Rahkaran, a multi-tenant cloud ERP SaaS serving 10,000+ businesses across multiple product modules.

Selected Platform & AI Engineering Projects

PortfoRadar - Portfolio Intelligence Platform (Platform Engineer) *Jan 2026 – Feb 2026*

- Designed and deployed a production-grade NestJS/TypeScript backend ingesting and serving KKR portfolio data (296 companies) via MongoDB with idempotent upserts, cron-based refresh, admin-key protected operations, and CI/CD-backed Docker/Railway delivery with 171 automated tests across 16 suites.

TIGER: 3D Point-Cloud Diffusion (ML Engineer) *May 2025 – Jul 2025*

- Reproduced CVPR 2024 TIGER pipeline generating 2,048-point shapes on ShapeNetCore.v2.PC15k using 200 training epochs with PyTorch, PyTorch Geometric, NumPy, scikit-learn, Plotly, Matplotlib.

Diffusion Age Estimation with Conformal Prediction (Applied ML) *Apr 2025 – Jun 2025*

- Built UTKFace age-estimation pipeline achieving 92% coverage for 90% target using Stable Diffusion v1.5, LDAE, conformal prediction with PyTorch, diffusers, scikit-learn, NumPy, Matplotlib.

DoctoRise - NHS Vacancies Bot (Full-Stack Developer) *Oct 2024 – Mar 2025*

- Created and deployed a Telegram job-alert bot scraping 3 NHS sources every 5 minutes (500+ postings/day) with de-duplication using Python, BeautifulSoup4, Requests, SQLite, Docker Compose, Telegram Bot API.

Personality-Based Career Recommender (Full-Stack Developer) *Jul 2024 – Aug 2024*

- Developed personality-based career recommender sustaining 700 concurrent users at 99.9% uptime using Next.js, Flask, PostgreSQL on AWS EKS with Docker, Kubernetes, Hugging Face, Locust.

VACCOVID - Global COVID-19 Tracker (Full-Stack Developer) *Aug 2020 – Jan 2021*

- Launched VACCOVID dashboard aggregating data for 219+ countries with 5-minute refresh, serving 10K+ daily API requests using TypeScript/Node.js, React, PostgreSQL, Docker, ETL scheduling.

Additional Technical Projects

Selected Academic & Research Projects *Nov 2024 – Apr 2025*

- **Eye Disease Detection (SSL + CNNs)** — 89.55% accuracy; DenseNet121, PyTorch, TensorFlow.
- **RCC Gene Ranking & Drug Repurposing** — 10,000+ node PPI interactome; NetworkX, Pandas.

Selected Datathons & Competitive Events *Sep 2024 – Feb 2026*

- **Novartis-Datathon 2025** - Pharma erosion forecasting for 1,953 series; CatBoost + LightGBM, 372 tests.
- **Novartis-Datathon 2024** - Market forecasting; MAE 0.095, RMSE 0.200; LightGBM.

Awards & Open-Source Impact

- Maintainer of VACCOVID APIs (2+ years), ranked 1st vaccine and 5th COVID-19 API on RapidAPI.

Education

MSc in Data Science - Sapienza University of Rome - Rome, Italy *Sep 2023 – Jul 2026*

- **Selected grades:** 30/30 in Algorithmic Methods of Data Mining and Laboratory, Data Management for Data Science, Computer Vision, Statistical Learning, Smart Environments Project.

BSc in Software Engineering - Islamic Azad University of Shiraz - Shiraz *Sep 2016 – Sep 2021*

Publications

Global COVID-19 NLP Reports - [Google Scholar] [Journal] [GitHub] *Dec 2022 – Mar 2023*

- **Authors:** Arman Feili, Amin Feili, Iman Badrooh; **Tech:** Python, spaCy, Hugging Face.

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Autorizzo il trattamento dei miei dati personali presenti nel CV ai sensi del D.Lgs. 196/2003 e del Regolamento UE 2016/679 (GDPR), anche ai fini della pubblicazione sul Portale Trasparenza di Borsa Merci Telematica Italiana S.c.p.A.