

FRANCESCO POSA

Full Stack Software Engineer

+41 799131634 ◊ Zürich, Switzerland

posa.francesco98@gmail.com ◊ linkedin.com/in/posافرancesco ◊ francescoposa.it

SUMMARY

Full Stack Software Engineer with deep backend expertise in Java and Spring Boot, complemented by Python for scripting, automation and machine learning. Comfortable moving across the stack, from modern frontend frameworks to relational database backed services, with hands-on experience in containerized deployment using Docker and Podman. Background in business-critical platforms within the financial services sector, with a strong grasp of Git and DevOps practices, OOP/SOLID design, and agile delivery.

EDUCATION

Master of Computer Science, EPFL, Switzerland 2020 – 2023

Bachelor of Computer Science Engineering, Politecnico di Bari, Italy (110/110 with honors) 2017 – 2020

Scientific High School Diploma, Leonardo Da Vinci High School, Italy 2012 – 2017

SKILLS

Programming Languages Java, Python, JavaScript, TypeScript, HTML5, CSS, SQL, Dart, PHP
Technologies Java EE, Spring Boot, Hibernate, Flutter, Angular, Gradle, Maven, Docker, Podman, REST, SOAP, AWS, Firebase, Git

Databases IBM DB2, PostgreSQL, MySQL/MariaDB

Machine Learning pandas, scikit-learn, statsmodels, TensorFlow, PyTorch

Soft Skills Leadership, Team Collaboration, Problem Solving, Critical Thinking, Client Focused Mindset, Self Motivation

Languages Italian (native), English (proficient), German (basic)

EXPERIENCE

Software Engineer February 2022 – Present
Adnovum, Zurich, Switzerland

- Designed backend webservice architecture (Java, Spring Boot) for a multi-canton social insurance portal, including versioned integrations for exchanging salary and employee data with external payroll systems.
- Optimized database queries and data models (IBM DB2, Hibernate) to improve performance and reliability of a high-traffic social insurance platform serving over 100,000 users.
- Built and maintained Angular frontend features, improving UI responsiveness and usability for case workers and administrators managing insurance and payroll processes.
- Coordinated with product and development teams to deploy releases on WebSphere Liberty and IBM MQ, meeting strict timelines across multiple cantonal deployments.
- Adopted AI-assisted development tooling (Claude Code, GitHub Copilot) into the daily workflow to speed up implementation, code review, and test writing, while maintaining code quality standards on a large production codebase.
- Wrote Python scripts to automate data migration, reporting, and release tooling for the platform.

Full Stack & ML Developer January 2021 – January 2022
IFI Advisory, Italy

- Designed and built a client facing web platform (@Risk) scoring crime risk for roughly 7,500 Italian municipalities, with a Next.js/React frontend and a PostgreSQL data model fed by a local data pipeline.

- Owned the ML component end to end, from feature engineering to regression modeling and trend forecasting in Python, fully replacing the client's legacy in house solution.
- Owned deployment end to end, containerizing the web application and ML pipeline with Docker and Podman and managing releases through to the client-facing production server.

Data Analyst

March 2020 – February 2022

EPFL, Lausanne, Switzerland

- Designed predictive machine learning and deep learning models in Python, using scikit-learn and TensorFlow, to assess COVID-19 spread, contributing to precise scenario simulations for policy impact analysis.
- Partnered with multi disciplinary teams to analyze and report on the economic and social effects of pandemic policies, providing insights for government decision making.

Java Instructor

October 2019 – October 2021

Accademia del Levante, Bari, Italy

- Guided over 100 students through Java programming essentials, including OOP principles, the Java Collections Framework, Exception Handling, and Multithreading.

Web and Android Developer

January 2019 – January 2020

Frigosud, Bari, Italy

- Developed and deployed "MySmartCloud," a cloud based IoT solution using Java (Spring Boot, Hibernate) and MQTT for real time monitoring of cold storage, reducing system downtime and improving data accuracy.

Journal Platform Developer

January 2017 – January 2021

EJPD, Bari, Italy

- Engineered a scalable journal management platform with OJS (Open Journal System), enabling efficient publishing and DOI integration for over 1,000 articles.

PHP Developer

June 2016 – August 2016

ICommLab, Bari, Italy

- Built a responsive web platform for creating dynamic landing pages using JavaScript, JQuery, Bootstrap, PHP, and MySQL, streamlining online client engagement.

PROJECTS

@Risk: Municipal Crime Risk Platform: A crime risk scoring platform for roughly 7,500 Italian municipalities on a five class scale, A through E, combining a Next.js and PostgreSQL web application with a regression and trend forecasting ML pipeline in Python. Containerized with Docker and Podman and deployed end to end.

Insurance Sector Portal: Enterprise portal for Swiss social insurance compensation offices (Ausgleichskassen), deployed across multiple cantons. Built with Angular and Java (Spring Boot, Hibernate), it manages core AHV operations (employer/member records, salary declarations, contribution processing) with standardized webservice integrations to external payroll systems.

COVID-19 Policy Simulator: Predictive models in Python for forecasting virus spread and unemployment, supporting data driven policy decisions during the pandemic. Published as a peer reviewed paper in PLOS Global Public Health.