Leonardo Fraquelli

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Experience

HubSpot Sep 2023 – Present
Software Engineer (Academy Learner & Growth Teams) *Remote*

- Architected dynamic context-injection and MCP skill integrations for an AI assistant, tailoring content discovery to live user state with automated LLM evaluation (eval) pipelines for quality assurance.
- Co-developed Vector-as-a-Service (VaaS) AI infrastructure to convert static Academy content into searchable semantic embeddings, powering RAG-based in-app answers and reducing user time-to-value.
- Architected multi-region Apache Kafka event-streaming pipelines to guarantee real-time data synchronization and zero-downtime database migrations for international users.
- Replaced legacy search logic with Elasticsearch indexing to reduce content discovery friction, driving a 25% increase in search click-through rates and faster path-to-content completion.
- Decoupled monolithic build dependencies across content, search, and user domains by owning schema design, DAO/DTO contracts, and cross-microservice validation, slashing build times by over 80%.
- Engineered scalable, user-facing AI recommendation and video guidance services that converted passive learners into active product users (>33% active engagement across 2,000+ daily sessions).

SatoshiPay Nov 2022 – Aug 2023
Part-Time Software Engineer & Technical Analyst *Remote*

- Conducted technical feasibility and runtime environment analysis of decentralized tooling to de-risk the Pendulum Parachain architecture to ensure a reliable mainnet launch.

HubSpot Apr 2022 – Jul 2022
Co-op Software Engineer (Academy Team) *Remote*

- Developed enterprise Java backend services using layered microservice patterns and strict automated verification workflows.

cubemos GmbH Jun 2020 – Mar 2022
Full-Stack Developer *Munich, Germany*

- Owned end-to-end feature delivery in a fast-paced startup, managing cloud-native Node.js microservices and containerized infrastructure on AWS (EC2, Lambda, IAM) and Docker, including automating CI/CD pipelines to accelerate release velocity.
- Architected a core Proof-of-Concept (PoC) prototype that directly contributed to securing the company's initial seed funding round in May 2021.

Ideatech Srl Dec 2019 – Mar 2020
C# Developer *Lecco, Italy*

Education

Technical University of Munich 2020-2023
Master in Informatics *Munich, Germany*

- **Thesis** Designed and implemented an advanced, automated load injection testing harness inside a custom Ansible environment to profile performance bottlenecks across multiple blockchain networks

Università degli studi di Milano Bicocca 2016-2019
Bachelor of Computer Science *Milan, Italy*

- **Thesis** Designed and executed a scalable load injection testing harness within a dockerized environment to profile container bottlenecks.

Technical Skills

Languages: Java, Python, Rust, SQL, JavaScript, C++, C#, R
Technologies: Spring Boot, Node.js, Express, Apache Kafka, Apache Spark, Elasticsearch, Memcached, PostgreSQL, MySQL, NoSQL, AWS (EC2, Lambda, IAM, Cognito), Kubernetes, Docker, Ansible, Guice
Concepts: Distributed Systems, Microservices, Event-Driven Architecture, Agentic Workflows & Orchestration, Tool Calling (MCP), Context Engineering, LLM Evaluation (Evals), Semantic & Vector Retrieval (RAG), Search Relevance & Ranking, Recommendation Systems, Zero-Trust & Scope-Based Authorization & Sharding, Automated Verification (TDD & Acceptance Testing)