

# Fritz Stelluto

## Senior Machine Learning Engineer

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### Recent Positions

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#### Wayfair / Senior Machine Learning Engineer

Jan 2022 - Present, Berlin

The Scam Prevention team focused on safeguarding Wayfair from the risks associated with customer scam. Our team's initiatives prevented an estimated \$47M of customer scam, and reduced scam risk as % of revenue from 1.4% to 1.2%

- Developed and maintained batch ingestion pipelines, integrating data from diverse sources (BigQuery, neo4j, spreadsheets) into Vertex AI Feature Store using Python and Kubeflow
- Orchestrated training, deployment, and monitoring pipelines for classification models, implementing Arize and Datadog for comprehensive monitoring
- Enabled internal access to model outputs through REST endpoints (FastAPI on Kubernetes) and distributed pub-sub systems (Kafka, Google PubSub, Scribe)
- Collaborated with business stakeholders, refining requirements and monitoring project progress.
- Mentored data scientists in software engineering practices and the team in agile methodologies
- Negotiated Service Level Objectives (SLOs) with other engineering teams
- Led the development of Proof of Concepts (POCs) for new initiatives, including the migration of an image analysis service to Rust for decreased latency

#### Advertima / Senior Software Engineer, Engineering Manager

Apr 2020 - Dec 2021, Berlin

I played a significant role in Advertima's venture into the cashier-less checkout domain as a Software Engineer, contributing to the development of a prototype that successfully secured \$15M in funding for further research and development. Advancing to the position of Engineering Manager for the Smart Signage team, I took charge of the development, maintenance, and deployment of Advertima's flagship product, resulting in an annual income of approximately CHF1M.

Key achievements and responsibilities included:

- Orchestrating both projects relying on a network of over 1200 distributed edge devices and sensors.
- Leading the Smart Signage team in integrating C++ computer vision models, streaming their output through Telegraf and a Node.js service to the AWS infrastructure.

- Implementing data flow from sensors to Apache Spark workloads for reporting and additional model training within the Smart Signage team.
- Deploying advanced computer vision models in the Cashier-less Checkout team, along with systems controlling store gates (Node.js), interacting with payment systems (Flask) and catalog (Django), and a reinforcement learning system for operator label assignments (Flask backend + Svelte frontend).

## **Flaconi / Technical Lead**

Jun 2018 - Jun 2019, Berlin

I contributed to the success of Flaconi, a leading German e-commerce venture with a yearly revenue of €134M during my tenure.

- As a team leader, I played a key role in the replatforming initiative, transitioning from a PHP monolith to a suite of microservices (mostly Node.js) orchestrated by a GraphQL gateway.
- Our responsibilities extended to managing data in PostgreSQL and Redis stores, overseeing the UI (React), and delving into ML Engineering by creating, maintaining, and deploying a recommendation service in collaboration with the data science team.
- The most significant challenge was executing the replatforming swiftly and seamlessly, ensuring zero downtime, even under heavy loads of up to 500 requests per second.

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## **Education**

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**University College London / B.Eng Electronic Engineering with Computer Science, 1994**

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## **Languages**

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English, Italian (fluent), German (intermediate)

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## **Other work experience**

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### **Full stack development**

Quandoo, Jul 2019 - Oct 2019, Berlin

Javascript (Node.js and React) and GraphQL development for the restaurant booking platform, Quandoo.

Various clients, Oct 2008 - Sep 2010, London

Developed mostly PHP backends and JS or Flash frontends for a diverse range of clients.

### **Management**

CMW London, Sep 2007 - Sep 2008, London / Technical Director

Managed technical aspects for a direct mail company transitioning into the digital realm. The primary account was Cadbury's, and all technical work was outsourced.

FCB, Nov 2005 - Jul 2007, London / Technical Manager

Played a pivotal role in establishing a digital department for a traditional advertising agency, FCB, which secured the Motorola account.

## Front end development

Tourlane, Nov 2019 - Feb 2020, Berlin

Worked on developing multilingual static sites for this travel operator using Gatsby and the JAM stack. Unfortunately, the tenure was cut short due to the impact of COVID.

pro!vision, Apr 2013 - May 2018, Berlin

Contributed to an Adobe partner company engaged in CMS and R&D projects for renowned clients such as Volkswagen, Adobe, Daimler, Bentley, Aldi, Mini, Siemens, and others. Developed internal libraries and user interfaces.

AKQA, Oct 2010 - Mar 2013, Berlin

Joined a digital agency with Volkswagen as its primary client. Responsible for building user interfaces across a diverse range of projects.

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## Education

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**University College London / B.Eng Electronic Engineering with Computer Science**

1994, London

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## Outside work

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In a previous life I trained and worked as a chef, and I still like doing cooking courses and am always on the look out for culinary discoveries. Beyond the kitchen, I play the bass and am actively seeking opportunities to join a band. Additionally, I engage with the tech community by attending meet-ups and various technology-related social events.