

Fabien Penso

Professional Experience

2024–2025 **Principal Engineer, Dango, Remote, dango.exchange**

Institutional-grade decentralized exchange bringing professional trading infrastructure on-chain (spot, margin, perpetuals, options, RWAs, and prediction markets) featuring a high-performance CLOB, cross-collateralization, and liquidity vaults. Built from scratch in Rust with a custom smart contract execution layer and CometBFT consensus. [Source is available on Github.](#)

- Designed and implemented a modular Rust indexer and GraphQL service powering all on-chain data queries, including real-time subscriptions, OHLC aggregation, and low-latency caching.
- Built secure, reproducible CI/CD with self-hosted runners, Cosign image signing, and multi-arch Docker pipelines enforcing supply-chain integrity. Deployed preview environments per PR with automatic teardown.
- Authored full-stack Ansible automation for infrastructure provisioning — multi-node CometBFT clusters, Cloudflare tunnels, Traefik load balancing, Grafana/Prometheus/Loki observability, all across global bare-metal environments.

2022–2024 **Principal Engineer, Stargaze, Remote, www.stargaze.zone**

NFT marketplace and L1 blockchain. Released [Constellations](#), a high-performance and real-time Rust Cosmos blockchain indexer. Initially a side-project, Stargaze acquired a license before the public release. It quickly evolved into a critical component and is now an integral part of displaying content on the main website.

- Fastest Cosmos chain indexer (indexes Osmosis since genesis in less than 6h, for >15TB of data).
- 80k Rust lines written.
- API handles >15 million requests per day with 0.99 apdex and <10ms P75 over 90 days.
- Gave a talk at [Nebular](#) (Paris, 2023) about Constellations ([slides](#), [youtube](#)).
- Gave a talk at [DEVMOS](#) (NYC, 2024) about Constellations ([slides](#), [youtube](#)).

2020–2022 **Principal Engineer, Beam, Paris, beamapp.co**

Web browser that completely rethinks the way you start a web session and browse the web. \$9.5 million Series A round from Spark Capital (Twitter, Tumblr) and Alven Capital.

- Wrote server-side components for a E2EE sync API to synchronize passwords, history and any critical user generated data on all the user devices. Initially in Ruby, I then moved it to Rust for performance reason (read my blog post).
- Wrote the client side E2EE sync API in Swift to let anyone in the team enable data synchronization within his code.
- Wrote a wasm (web) version to let users use our website to view their encrypted data.

2018–2020 **CTO-CPO, Co-founder, Kard, Paris, kard.eu**

Neobank focusing on Gen Z. *Details redacted for brevity.*

2017–2018 **CTO-CPO**, Accor Hotels, Paris
Project under direct supervision of the CEO. *Details redacted for brevity.*

2015–2017 **CTO**, Stuart, Paris and Barcelona, www.stuart.com
Last-mile delivery company. Went from 40 to 120 employees, €22 million investment pre-launch, acquired by La Poste in 2017. *Details redacted for brevity.*

2013–2014 **Senior Software Engineer**, ProcessOne, Paris and London
Messaging company behind ejabberd, used by WhatsApp. Led development of BBC's push notification platform, scaling to 20 M devices and 500 M pushes/day. *Details redacted for brevity.*

2010–2011 **Senior Software Engineer**, Causes, San Francisco
Social advocacy platform founded by Sean Parker and Joe Green. Personally recruited by Joe Green after F8. Built the first global Facebook OpenGraph integration, handling 10 M+ daily requests, 80 M monthly emails, and serving 160 M users. *Details redacted for brevity.*

2003–2010 **Software Engineer / Technical Lead**, Various Companies
Held senior engineering roles across startups and enterprises, focusing on backend systems, distributed infrastructure, and large-scale web platforms. Details redacted for brevity.

2000–2003 **CTO - Co-founder**, DBee SA, Paris
Early video streaming company enabling enterprises to broadcast live events online. Served 50% of CAC40 clients (Air Liquide, EDF, LVMH, Saint-Gobain, Suez, Vivendi). Profitable from inception ; grew to 15 employees and operated until 2019.

Side Projects

2008–2012 **iOS application**
Built one of the first iOS apps delivering real-time push notifications for Twitter, Facebook, RSS, and email. Implemented PubSubHubbub and early Twitter Firehose access for live data. Reached 100 k users and managed 300 k active RSS feeds.

1999 – 2006 **LinuxFr, Founder**, linuxfr.org
LinuxFr was the first French Linux community website (similar to Slashdot or Reddit), with its code released under a free software license. It quickly joined the top50 French website based on traffic and still receives >300 million hits per year.

Education

2004–2005 **Master degree of Computer Science**, IFSIC, Université de Rennes 1, France
Completed in 6 months following several years of running my own company and with only a high school diploma. Graduated with honors, Cum Laude.

1995–1996 **Senior Year**, Richmond Community High School, Michigan, U.S.A

Language

English Bilingual
French Native