

beta.gouv (November 2024 - Present)

- From-scratch development of a platform to track publicly funded projects initiated by local communities
- Design of a synchronization protocol to keep all project-tracking tools up-to-date

Leave (November 2022 - October 2024)

- **Travelling**
- **Side-projects:** collaborative filtering based recommendation engine for bandcamp.com in Kotlin, GameBoy emulator in Rust
- **Volunteer work**
 - Dev work for the redesign of leretroprojecteur.com, a directory for old movies playing in Paris theatres
 - Field work for FNPF, a bird-shelter in Nusa Penida, Indonesia
 - Math tutor at <https://www.ensparis.fr/>
- **Freediving:** Became a certified freediving instructor

Laminar Markets (October 2022)

- Built the entire front-end for a crypto trading platform
- Integrated with the front-end crypto wallet APIs, the back-end HTTP API, and the back-end websocket API to build interactive real-time components for order books, currency pair tickers, currency pair trading charts, recent trades, and placing orders

Surfboard (January 2022 - October 2022)

- Cut down on developer error and production downtime by introducing new tools including type generation for SQL entities, protocol buffers, type checking, integration tests with dockerized external services, structured (JSON) logging and log querying, paging on error logs, rolling restarts & high availability
- Led small teams (2-3 people) in the delivery of large new features, including building a new python web service from scratch and converting a pipeline which used to be several hours long and spanned 4 different services into a single real-time (<1s latency) endpoint in our main backend service

Palantir (June 2016 - March 2021)

- **Authentication and authorization service:** led the work to implement two-factor auth, reported and fixed security vulnerabilities, implemented an RBAC-based permissions model for our authorizations graph
- **Status page service:** led the work to build a status page for our platform, with completely decoupled infrastructure to guarantee 100% uptime and automated status updates based on platform health metrics
- **Code authoring service:** improved cold-start performance tenfold and made session resumption after connection drops instantaneous, added custom webhooks to our platform's continuous integration tool
- Created a company-wide GitHub bot to automatically fix lint errors on pull requests

Google Compare (November 2014 - April 2016)

- Built a logging & monitoring system to help debug failed requests to 3rd party insurance providers
- Built a tool to enable non-engineers to integrate with 3rd party insurance providers without writing code.

Google Analytics (intern, Summer 2013)

- Built an NLP-powered front-end to query Google Analytics e.g. "how many users were from France?"

Projects

- **boyohboy (2024):** work-in-progress GameBoy emulator
- **leretroprojecteur (2023):** a directory for vintage movies playing in Paris cinemas
- **matchedpotato.shop (2022):** crawls vinted.com to find clothes matching a color from a user-uploaded picture
- **bandcamp-feed (2021):** an alternate front-end for bandcamp.com supporting splitting subscriptions by genre and embedded playback
- **pawned (2021):** a chess game with a GUI and networked play
- **cratedigger (2016):** an alternate front-end for discogs.com with continuous playback
- **passmein (2014):** an end-to-end encrypted web-based password manager
- **chip16 (2014):** an emulator for a fictional console

Tech

- **Back-end:** Java (Dropwizard, Jersey), Typescript (Node, Express, Nest.js), Python (FastAPI, Flask), Ruby (Rails), SQL (Postgres, SQLite, Hibernate), Redis, GCP PubSub, RabbitMQ
- **Front-end:** React (Next.js, Redux, Zustand), CSS (Tailwind)
- **Infra & Misc:** Docker, Ansible, Terraform, AWS, GCP, LDAP, SAML, OAuth

Education

- **MEng Computing** at Imperial College London
- **Master's thesis** ('SubSync, a long audio aligner') improved on the state-of-the-art for subtitle alignment