

PATRICK FITZSIMONS

07789529650 ◇ **Beckenham, London** — Software Engineer
patrickfitzs17@hotmail.com ◇ [LinkedIn](#) ◇ [Personal Website](#) ◇ [GitHub](#)

EDUCATION

BSc Data Science and Computing: Birkbeck, University of London. Result: 1:1 (first), 2023 - 2026

Certifications: • Introduction to Neural Networks and PyTorch [IBM] • Generative AI & LLMs: Architecture & Data Preparation [IBM] • Databases & SQL for Data Science [IBM]

EXPERIENCE

Full Stack Developer November 2025 – Present
Vinvorum *Hybrid, London*

Tech: Node.js, Express, PostgreSQL, SQL, React, REST APIs, Tailwind, JWT, Heroku

- Developed and deployed a full stack client portfolio platform serving 100+ clients, building backend APIs, PostgreSQL database models and React based user interfaces.
- Built ETL pipelines to migrate legacy WordPress user, portfolio, and content data into PostgreSQL (100+ accounts, 1,000+ holdings, 150 posts), enabling cost-basis portfolio views, regional exposure breakdowns, and admin aggregates across all client accounts.
- Integrated the Liv-ex API to sync alternative investment indices via scheduled cron jobs, serving benchmark data and performance visualisations for authenticated clients.
- Implemented on demand PDF portfolio statement generation, reducing report creation from 20+ minutes of manual work to self service exports, and built secure authentication using JWT, bcrypt, and audit logging for admin data changes.

Backend Developer November 2025 – February 2026
OoNt *Hybrid, London*

Tech: NestJS, TypeScript, Firestore, Stripe API,

- Developed and maintained scalable backend API endpoints supporting vendor, order, and payment workflows, including order capture, cancellation, and refund logic with Stripe integration.
- Collaborated with frontend and product teams in Agile sprints, focusing on reliability, performance, and clean architecture.

Software Developer Intern May 2025 – June 2025
Legal Pythia *Hybrid, London*

Tech: Python, Selenium, BeautifulSoup, Requests, Docker, MinIO, Google Cloud Functions, GitHub Actions

- Designed and developed ETL pipelines in Python to extract data from diverse sources, process and clean it, and store the results in Google cloud storage buckets. Tested locally with MinIO and containerised with Docker.
- Deployed to Google Cloud Functions for cost efficient, serverless execution. Implemented CI/CD Workflows with GitHub actions to automate builds, testing, and deployment updates.

PROJECTS

- **Aerial Object Detection System** *In Progress*
Building a radar simulation and object detection framework using C++ and Python, modeling kinematics and signal behaviour, applying statistical feature engineering and supervised learning techniques for probabilistic target classification.
- **Vendor & Transaction API.** Designed backend APIs for vendor and transaction workflows, focusing on clean architecture and reliable data handling.
- **Bank Transaction Ingestion API.** Developed a FastAPI ingestion API for multi-GB CSV bank transactions with constant memory streaming, chunked processing and row level validation. Implemented transactional batch inserts with rollback on failure handling, error logging and SQLite with indexed queries and expiry cleanup.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, C++, SQL, R

Frameworks: Flask, FastAPI, Express, NestJS, React

ML / Data: PyTorch, scikit-learn, Pandas, NumPy, SciPy, Matplotlib

Cloud & DevOps: Docker, GCP (Cloud Functions, Cloud Storage), Firebase, Heroku, CI/CD

Tools: Git, GitHub, PostgreSQL, Postman, MinIO, MongoDB, Backblaze