

Bartosz (Bartek) Bak

London/York, UK
Open to relocation

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PROJECTS

Psychology revision platform

Demo — Source

AWS RDS, Redis, Docker, TypeScript, React (Vite), Bun, Hono, Caddy

- Built a psychology exam platform for just over 200 students, with a React frontend and a Bun/Hono backend with caching.
- Containerised a Hono API on the Bun runtime, compiled it into a single self-contained binary, and deployed it in a distroless Docker container using multi-stage builds.
- Implemented Redis caching with automatic invalidation and IP-keyed rate limiting; generated questions once and persisted them to AWS RDS PostgreSQL behind Caddy with SSL.

Rota management system

Demo — Source

Next.js, React, TypeScript, PostgreSQL, Better-Auth

- Built a full-stack rota tool for a former workplace using Next.js App Router and serverless API routes.
- Implemented rota parsing with OpenAI, converting uploaded weekly rota images into structured shifts for staff.
- Displayed personalised schedules with hours, pay, and co-workers on shift; used by 4 employees during a 5-week pilot.

Intelligent ad segment remover

Source

TypeScript, Bun, Hono, FFmpeg, Docker, OpenAI API, SQLite

- Built an API service to detect and remove ad segments from audio files using Whisper via Fireworks, FFmpeg, and LLMs; persisted processing history and outputs in SQLite.
- Developed a RESTful Bun + Hono API and containerised it with Docker for self-hosting and deployment.
- Processed a 1-hour podcast in 56s on hosted Whisper, measured as mean runtime over 5 runs excluding upload time.

EXPERIENCE

Internship at Objective

Chelmsford, UK

Software development internship

June 2023

- Developed a complete dashboard for a client in React and Tailwind CSS.
- Diagnosed and fixed performance issues in a C# application, despite having no prior experience with the language.
- Migrated around 13,000 records from CSV sources into relational databases with 0 data-loss incidents.
- Designed and built 2 interactive Power BI dashboards to visualise key metrics.

EDUCATION

University of York

York, UK

BSc Computer Science — Predicted 2:1+

Sep. 2024 – Present

SKILLS

Languages: TypeScript, Python, Java, Bash, SQL

Frameworks: React, Next.js (App Router), SvelteKit, Tailwind CSS, Hono, Vite

Databases: PostgreSQL, SQLite

DevOps & Cloud: Linux, Docker, Nginx, AWS (Lambda, RDS, API Gateway, EC2, ECS)

Spoken languages: English (native), Polish (native)

ADDITIONAL INFORMATION

- **Morgan Stanley Programming Challenge:** Placed in the top ~25% of teams; built a Python trading bot with real-time market analysis and execution logic.
- **Open-source work:** Maintainer of a React component library built with TypeScript and Tailwind, with shadcn registry compatibility; occasional open-source contributor.
- **Hackathon participations:** Microsoft Azure AI Hackathon; Cloudflare + ElevenLabs Hackathon.
- **Peer mentoring:** Provided 1:1 second-year student mentoring in mathematics, problem solving, and programming.
- **Society secretary:** Coordinated meetings, documentation, and committee communication.