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Summary

Computer Science student at the University of York building UIs with **React**, **TypeScript**, **Next.js**, **Tailwind** and backends with **Python**, **Node.js**, **PostgreSQL** and **AWS**; maintainer of React component library and occasional open source contributor. Familiar with Linux administration. Open to relocation.

Projects

Psychology revision platform • AWS RDS, Redis, Docker, TypeScript, React (Vite), Bun, Caddy • [source](#)

Psychology exam platform with React frontend (Vercel) and Bun backend with caching.

- Containerised Hono API on Bun runtime compiled to a single self-contained binary; deployed in a distroless Docker container with multi-stage builds.
- Redis caching layer with automatic invalidation and IP-keyed rate limiting.
- Questions generated once and persisted to AWS RDS PostgreSQL; SSL through Caddy.

Rota management system • Next.js, React, TypeScript, PostgreSQL, Better-Auth • [demo](#) • [source](#)

Full-stack rota tool for my former workplace, built with Next.js App Router and serverless API routes.

- Manager uploads weekly rota image → serverless API (with OpenAI) parses image to structured shifts; staff get personal routes with hours, estimated pay, and co-workers also on shift.
- Used by 4 employees over a ~5-week pilot.
- TypeScript end-to-end across client, API routes, and database operations.

Intelligent ad segment remover • Python, Flask, FFmpeg, Docker, OpenAI API, SQLite • [demo](#) • [source](#)

API service to detect and remove ad segments from audio files using Whisper (Fireworks), FFmpeg, and LLMs.

- RESTful API built with Python and Flask; containerised with Docker for self-hosting and deployment.
- On hosted Whisper, processed ~1hr podcast in 56s (mean, n=5; excludes upload).
- Stores history in SQLite database, with API routes to manage this data.

Experience

Work experience at Objective, Chelmsford, UK

June 2023

- Co-developed a client dashboard front-end in React and Tailwind CSS.
- Diagnosed and fixed performance issues in a C# application, with no prior experience with the language.
- Migrated data from CSV sources (~13,000 records) into relational databases; 0 data-loss incidents.
- Designed and built 2 interactive Power BI dashboards to visualise key metrics.

Education

BSc Computer Science, University of York

September 2024 - Present

On track for 2:1+

Skills

Languages:

TypeScript, Python, Java, Bash, HTML, SQL

Frameworks:

React, Next.js (App Router), Svelte, SvelteKit, Tailwind CSS, Flask, Vite

Databases:

PostgreSQL, SQLite

DevOps & Cloud:

Nginx, Linux, Docker, AWS (Lambda, RDS, API Gateway, EC2, ECS)

Soft Skills:

Teamwork, communication, creative thinking, adaptability, problem solving

Extra information

- **Morgan Stanley Programming Challenge** - Placed top ~25% of teams; built a Python trading bot with real-time market analysis and execution logic.
- Maintainer of React component [library](#) (TypeScript, Tailwind, shadow registry compatibility).
- **Microsoft Azure AI Hackathon** - Extended ad trimmer with Azure AI Foundry/Elastic Compute; added segment summaries, format conversions, and a drag-and-drop UI.
- **Peer mentoring** - 1:1 A-level CS/Maths; custom materials to improve problem-solving.
- **Secretary of a society** - meetings, documentation, coordination with committee.
- **Languages** - English (native), Polish (native).