

David Rosental

+44 7913 026637 | david2005.rosental.work@gmail.com | linkedin.com/in/david-rosental/ | davidrosental.co.uk/

EDUCATION

University of Warwick

Coventry, UK

Computer Science, MEng – Expected 1st Class Honours

Sep. 2023 – Jun. 2027

- Focus on Web Technologies, Computer Security, Database Systems, Data Analytics, AI, Machine Learning.

Hill's Road Sixth Form College

Cambridge, UK

A Levels – Maths, Further Maths, Computer Science, Physics + EPQ (4A + A)*

Sep. 2021 – Jun. 2023

EXPERIENCE

Software Engineering Intern (*Full-Time*)

On-Site (London, UK)

Bloomberg LP

Jun. 2026 – Sep. 2026

- Developed a Python service to migrate event publishing within Bloomberg Terminal's PM workflow to a pub-sub architecture, supporting 1,300 active subscriber connections across 340 high-availability client deployments.
- Implemented Kafka-based event-driven processing with relational database for caching. Complemented migration with updates to downstream Java/C++ services to support migration of the pub-sub system.
- Developed auxiliary service subscribing to both legacy and migrated streams, verifying 100% output equivalence.

Software Engineering Intern (*Full-Time*)

On-Site (Alcester, UK)

Vetric Ltd.

Jun. 2025 – Sep. 2025

- Developed WebSocket-based communication with CNC machines using the Web Serial API (Javascript), enabling real-time manual/script-based control via web browser using G-code.
- Built an interactive toolpath visualiser (React + Three.js) for 3D simulation and debugging of G-code scripts.
- Implemented high-speed polygon spiral pocketing algorithm in C++ based on published literature.

PROJECTS

Amazon PPC Platform (BSc Project) | *Go, React, Postgres, MongoDB*

Oct. 2025 – May 2026

- Built a multi-user Amazon PPC automation platform with Login with Amazon integration, enabling sellers to define, schedule, and execute custom bidding strategies based on Amazon Ads Reporting metrics.
- Implemented a custom DSL interpreter in Go for rule-based bid policies; included lexer, parser and evaluator.
- Designed a Go microservices architecture, with REST-style interfaces and custom JWT auth flow. Developed bespoke Traefik middleware plugin for secure header propagation. Deployed and orchestrated via Kubernetes.

Traffic Junction Modeller | *Java, Maven, JUnit, Mockito, Swing, JavaFX*

Jan. 2025 – Mar. 2025

- Led five-member team as Project Manager, developing a cross-platform MVC application to simulate single-junction traffic flow. Managed timelines, sprints, and requirement prioritisation with Agile methodology.
- Designed system architecture and integration, coordinating between UI, model, and data processing teams to deliver a Java-based tool with real-time visualisation, local search optimisation, and file-based configuration management.
- Implemented structured collaboration workflows through GitHub Actions CI/CD, code reviews, and pair programming, improving code quality and maintaining project cohesion across multiple development threads.

COURSES

Cloud Fundamentals: AWS Services for C# Developers

- Practical introduction to .NET AWSSDK for a variety of AWS services including S3, Lambda and Secrets Manager

REST APIs in .NET | *ASP.NET Core*

- Versioning, HATEOAS, Swagger, caching, health checks, authentication/authorisation, and user-specific actions.

Docker for Developers

- Docker networks, Docker bind mounts/volumes/tmpfs, and image security, and image scanning.

TECHNICAL SKILLS

Languages: Python, C/C++, Java, C#, Go, SQL (Postgres + MySQL), JavaScript, TypeScript, HTML/CSS

Frameworks: ASP.NET Core, React, jQuery, Express.js, Flask, Gin-Gonic

Data Infrastructures: MySQL, MariaDb, Postgres, MongoDB, Hadoop, Kafka, RabbitMQ