Oliver Jay

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Introduction

I am a highly skilled full-stack developer and Computer Science graduate with expertise in modern web technologies, AI, and cloud architecture. My deep passion for technology drives me to constantly learn and build new things, often working on individual projects and acquiring new skills in my downtime. I've successfully delivered multiple production applications, including an award-winning Web3 project and various open-source tools. Proficient in TypeScript, Go, and Python, with a strong focus on creating intuitive user experiences and implementing robust, secure technical solutions.

Employment History

Softpauer (2025 - Current Day)

Full Stack Software Engineer

Full-stack software engineer specializing in AI-powered enterprise applications and cloud infrastructure. As the lead engineer, I drove the design, development, and deployment of a complex multi-agent AI system, taking it from initial concept to a fully operational, production-ready product. My key responsibilities and expertise included:

- **AI Agent System Development & Deployment**: Spearheaded the end-to-end development of a scalable multi-agent AI system, integrating advanced language models, sophisticated function calling, and comprehensive performance optimization strategies to deliver a robust enterprise solution.
- **Secure Cloud Infrastructure & DevOps**: Designed and deployed the entire Azure cloud environment, implementing a secure SDLC by integrating static code analysis (Bandit) and automated security checks directly into CI/CD pipelines. Established private networks and strict access controls to minimize the attack surface and ensure secure operational practices.
- **Application Security**: Developed core project functionalities with a security-first mindset, meticulously handling user inputs and implementing robust defenses against common vulnerabilities like Remote Code Execution (RCE) and SQL Injection.
- **Advanced AI Security**: Conducted in-depth security architecture reviews and threat modeling for the AI agent system, proactively addressing unique AI-specific risks such as prompt injection, sensitive data leakage, and denial-of-service scenarios, adhering to **OWASP Top 10 for LLMs** principles.
- **Security Monitoring & Compliance Readiness**: Implemented comprehensive logging, version control, and alerting systems to enhance visibility, support continuous monitoring, and contribute to overall compliance readiness.

Responsible for transforming business requirements into robust, scalable technical solutions while maintaining high code quality standards and security best practices.

Unemployed (2023 - 2024)

- Took a gap year to travel and see the world, gaining a broader perspective on global cultures.
- Focused on self-directed learning and development in software engineering, with a particular emphasis on emerging technologies and best practices.
- Gained hands-on experience in:
  - **AI Agents**: Building and deploying complex agentic systems through personal projects.
  - **Blockchain**: Understanding core blockchain principles and deploying simple decentralized applications.
  - **Cloud Platforms**: Deepened expertise in Google Cloud Platform (GCP), including implementing CI/CD best practices within the GCP ecosystem.
  - **Databases**: Explored various database solutions, from self-hosting to cloud options, encompassing both SQL and NoSQL paradigms.
  - **Authentication**: Mastered diverse authentication methods, from basic JWT implementations to advanced OAuth 2.0 flows.
  - **Programming Languages**: Enhanced proficiency in React, TypeScript, Rust, Python, and Go through extensive personal coding.
- Participated in several hackathons, winning multiple prizes for projects.
- Completed personal projects such as SketchSlides, a modern responsive slideshow PWA, and WebNovelClient, a full-stack project for sharing user-uploaded novels.
- Used the time to align my skills with long-term career goals in software development and security.

The Curve Group (2021 - 2022)

- Officially employed as a Data Analyst, though I had a variety of responsibilities in this position.
- Set up and managed the primary database used by the company (Microsoft Dataverse), managing dataflows and API calls.
- Frequent usage of SQL, PowerQuery, Excel, and Power BI to create and distribute reports.
- Extensive customization of the front end of the database using JavaScript, PowerApps, Power Automate, and Azure Functions.
- Experienced working in a small self-managed team (2-3 people).
- Troubleshooted technical issues throughout the business, providing support and guidance to staff.

Education and Qualifications

Royal Holloway University of London (2019 - 2021)

- Bachelors of Computer Science (First Class)

University of Birmingham (2016 - 2019)

- Diploma of Higher Education in Physics

Space Studio Banbury (2014 - 2016)

- A Levels: Maths (A*), Further Maths (A), Physics (A)

Chenderit School (2009 - 2014)

- GCSEs: 7 A and A* including Maths, Further Maths, and English. 13 total passing grades
- Additional Maths (A) - FSMQ
- Extended Project (A) - Level 3 Qualification

Skills

Programming Proficiency

- **TypeScript**: Used extensively in personal projects
- **JavaScript**: Primary programming language used at The Curve Group
- **Python**: Primary language for building and deploying AI agent systems and machine learning algorithms.
- **Rust**: Used for smart contract development on the Solana blockchain
- **Golang**: Used in recent personal projects with SQLite database integration
- **React**: Developed modern frontends with dynamic user interfaces, particularly with Remix

Additional Skills

- **Cloud Platforms**: Extensive experience with Azure; hands-on experience with Google Cloud Platform (GCP).
- **DevOps**: CI/CD implementation, cloud deployment, and best practices (Azure, GCP).
- **Cyber-Security**: Knowledge of application security (RCE, SQL Injection), AI security (OWASP Top 10 for LLMs), network security, OS security, cryptography, and OSINT.
- **AI Agents**: Experience in building and deploying complex agentic systems.
- **Databases**: Proficient in designing and managing both SQL and NoSQL databases, from self-hosted to cloud solutions.
- **Authentication**: Expertise in various methods, including JWT and OAuth 2.0.
- **Blockchain**: Understanding of core principles and experience deploying simple decentralized applications.
- **Operating Systems**: Strong experience with all operating systems, particularly Linux (daily driver).
- **Problem Solving**: Demonstrated through complex engineering challenges and technical problem-solving.
- **Presentation Skills**: Regular presentations to executives and department heads.
- **Self-Management**: Strong ability to organize and conduct independent research and project development.
- **Teamwork**: Led a small team (3 people) in the development and deployment of the AI agent system, taking primary ownership of project direction and execution.

Interests and Achievements

- Particularly interested in machine learning, I performed my final year project on analysis of machine learning algorithms and achieved the highest grade. Interests in a wide range of technologies, from AI, cloud computing, different operating systems, networking, and encryption.
- Won first place on the Solana Zeus Bounty at Taipei Blockchain Week 2024 Hackathon (8888 $ZEUS)
- Won second place at the Web3 AI London Hackathon (500 $USDC)
- Achieved Chief Scout's Gold Award
- Achieved UK Maths Challenge Gold Award - Best in School