Richard Waters

Github: https://github.com/richardwaters9049

Liverpool L4 6TZ

richardwaters866@gmail.com

+4407922288176

Experienced and versatile Full-Stack Software Developer with a comprehensive background in web development and a strong proficiency in various programming languages and frameworks. Proven expertise in creating efficient and scalable solutions, with a focus on delivering high-quality code. Demonstrated success in collaborating with cross-functional teams and contributing to the success of well-known brands. Holds a First Class honours degree in Computer Science.

Work Experience

Senior Software Engineer

Club L London-Manchester, Greater Manchester

January 2023 to Present

As a Senior Software Engineer at Club L London in Liverpool since January 2023, I developed a robust backend system with Node.js and MongoDB for seamless Shopify data synchronisation between stores and the warehouse. I optimised the order processing system to efficiently manage high volumes during peak periods and created custom API integrations with third-party services. By employing performance monitoring tools, I identified and addressed system bottlenecks and conducted data analysis with Python to detect patterns in order returns. My role also involves collaborating with front-end developers, designers, and warehouse teams, ensuring data security and compliance, maintaining detailed documentation, and staying current with the latest web technologies.

• Shopify Data Synchronisation: Engineered a robust backend system using Node.js and MongoDB to ensure seamless data synchronisation between multiple Shopify stores and the warehouse.

• Order Processing Optimisation: Streamlined the order processing system, optimising backend workflows to handle increased order volumes during peak seasons.

• Custom API Integrations: Developed custom API integrations to connect the e-commerce platform with third-party services.

• Performance Monitoring and Optimisation: Utilised monitoring tools to track system performance and identify bottlenecks.

• Data Analysis: Conducted data analysis using Python to identify patterns in order returns.

• Collaboration with Cross-Functional Teams: Worked closely with front-end developers, designers, and warehouse teams.

• Security and Compliance: Implemented security measures to protect customer data.

• Documentation and Knowledge Transfer: Maintained comprehensive documentation for backend systems.

• Continuous Learning and Skill Enhancement: Stayed abreast of the latest developments in web technologies.

AI and Machine Learning Developer

Freelancer.com-Liverpool

January 2020 to Present

As an AI and Machine Learning Developer at Freelancer.com in Liverpool since January 2020, I created an AI-powered web application enabling users to verbally request articles on specific topics. I employed machine learning algorithms like K-Nearest Neighbours (KNN) and applied Natural Language Processing (NLP) techniques to improve the app's understanding of user queries. Additionally, I performed data

analysis and visualisation using Python, with libraries such as Pandas and Matplotlib, to derive insights and enhance application performance.

• AI-Powered Web Application: Developed a web application that allowed users to speak to the app and ask it to find articles based on certain subjects.

• Machine Learning Algorithms: Worked with machine learning algorithms such as K-Nearest Neighbours (KNN).

• Natural Language Processing (NLP): Implemented NLP techniques to enhance the app's ability to understand user queries.

• Data Analysis and Visualisation: Conducted data analysis using Python and libraries such as Pandas and Matplotlib.

Senior Software Engineer

Velstar-Liverpool

January 2021 to December 2023

As a Full Stack Software Engineer at Velstar, I was instrumental in designing, developing, and deploying bespoke custom Shopify themes tailored to our clients' specific needs. My role involved both front-end and back-end development, employing a range of technologies to create high-performance, visually appealing, and highly functional e-commerce solutions.

Key Responsibilities:

• Theme Development: Designed and implemented custom Shopify themes using a combination of React, Liquid, and Shopify APIs to deliver tailored e-commerce experiences that met client specifications.

• Front-End Development: Used React to build dynamic, responsive user interfaces, ensuring a seamless and engaging shopping experience across various devices and screen sizes.

• Back-End Integration: Integrated Shopify APIs with custom back-end solutions to enhance theme functionality, including data retrieval, product management, and order processing.

• Liquid Templating: Customised Shopify themes using the Liquid templating language to achieve specific design and functionality requirements, optimising performance and usability.

• Collaboration: Worked closely with designers, project managers, and other developers to gather requirements, iterate on designs, and ensure the timely delivery of high-quality solutions.

• Testing and Debugging: Conducted thorough testing and debugging of both front-end and back-end code to identify and resolve issues, ensuring a robust and error-free user experience.

• Performance Optimisation: Implemented best practices for code efficiency and performance, including optimising loading times and responsiveness to enhance overall site performance.

Technologies Used:

• React: For building interactive and dynamic user interfaces.

• Liquid: For templating and customising Shopify themes.

• Shopify APIs: For integrating and manipulating Shopify data and services.

• HTML/CSS and Tailwind: For structuring and styling web pages.

• JavaScript: For enhancing client-side functionality and interactivity.

• Git: For version control and collaboration.

Achievements:

• Successfully delivered multiple high-impact custom Shopify themes, resulting in enhanced client satisfaction and increased e-commerce performance.

• Streamlined theme development processes through effective use of React components and Shopify APIs, reducing development time and improving overall efficiency.

Penetration Tester

SecureTech Solutions-Liverpool

January 2021 to December 2023

As a Penetration Tester at SecureTech Solutions in Liverpool from January 2018 to December 2019, I carried out thorough vulnerability assessments and executed penetration tests to identify and exploit security weaknesses. I analysed network traffic and protocols with Wireshark, tested web applications for security vulnerabilities, and conducted security audits to ensure compliance with industry standards.

My role also involved performing ethical hacking exercises to simulate real-world attack scenarios and producing detailed reports on findings.

• Vulnerability Assessment: Conducted comprehensive vulnerability assessments.

• Penetration Testing: Executed penetration tests to exploit vulnerabilities.

• Network Security: Analysed network traffic and protocols using Wireshark.

• Web Application Security: Tested web applications for security vulnerabilities.

• Security Audits: Conducted security audits for compliance with industry standards.

• Ethical Hacking: Performed ethical hacking exercises to simulate real-world attack scenarios.

• Documentation and Reporting: Created detailed reports on findings.

An example Penetration Report can be found here:

https://github.com/richardwaters9049/pen-report

Software Engineer
Tornado-Liverpool
January 2019 to December 2021

As a Software Engineer at Tornado in Liverpool from January 2019 to December 2021, I spearheaded the development of custom CRM systems using CodeIgniter and Laravel, enhancing client operations and relationship management. I built and maintained high-performance client websites with PHP, JavaScript, and other technologies, ensuring optimal responsiveness. Additionally, I established CI/CD pipelines using GitLab, streamlining development workflows and accelerating time to market. I also led testing and quality assurance efforts with PHPUnit, performing both automated and manual tests to ensure robust and reliable code.

• Custom CRM Development: Led the development of custom CRM systems tailored to client needs using CodeIgniter and Laravel. Enhanced customer relationship management processes and improved overall client operations.

• Website Development: Developed and maintained multiple client websites, ensuring high performance and responsiveness. Utilised PHP, JavaScript, and other technologies for full-stack development.

• DevOps and CI/CD Pipelines: Set up continuous integration pipelines using GitLab for automated testing and deployment, improving development workflow and reducing time to market.

• Testing and Quality Assurance: Implemented PHPUnit for automated testing, ensuring robust and reliable code. Conducted manual and automated tests to identify and fix bugs.

Software Developer
Liverpool Hope University-Liverpool
January 2018 to December 2019

As a Software Developer at Liverpool Hope University from January 2018 to December 2021, I designed and developed a web application enabling tutors to securely log in and submit funding requests. I implemented secure user authentication and created an intuitive interface for managing and tracking these requests. My work utilised PHP and MySQL for the backend, alongside HTML, CSS, and JavaScript for the front end. I also ensured thorough project documentation to support the application's development and maintenance. This role was undertaken while completing my degree in Computer Science.

• Web Application Development: Developed a web application allowing tutors to log in and create form submissions for funding requests.

• User Authentication: Implemented secure login functionality.

• Workflow Management: Created a user-friendly interface for managing and tracking the status of funding requests.

• Technology Stack: Utilized PHP and MySQL for the backend, and HTML, CSS, and JavaScript for the frontend.

• Project Documentation: Maintained comprehensive documentation for the application.

Education

Bachelor of Science in Computer Science in Computer Science
Liverpool Hope University - Liverpool, UK
2018 to 2021

First Class Honours

Skills

- Debugging Troubleshooting: Advanced debugging skills to ensure smooth software rollout (8 years)
- Programming Languages: Go, Java, Python, JavaScript, C++, C, Rust, PHP, Ruby, TypeScript and more. (8 years)
- Agile Development: Scrum, Kanban (8 years)
- Penetration testing (3 years)
- Spring
- Front-End Frameworks: React, Next.js, Vue.js, Svelte, Angular, Ember.js, Tailwind CSS, Boot- strap, Foundation (8 years)
- Testing: PHPUnit, Jest, Mocha, Selenium, Cypress (6 years)
- Databases: MySQL, PostgreSQL, MongoDB, Redis, SQLite, Microsoft SQL Server (8 years)
- Penetration Testing and Ethical Hacking: Wireshark, Burp Suite, Nmap, Metasploit, Nessus, Processing (NLP), NLTK, SpaCy (5 years)
- Back-End Frameworks: Laravel, CodeIgniter, Yii, Flask, Django, Express.js, Spring Boot, Ruby on Rails, ASP.NET (8 years)
- Version Control: GitHub, Bitbucket (8 years)
- Linux
- Go/Golang
- Java
- Cloud Technologies: AWS, Azure, Google Cloud Platform (GCP) (6 years)
- Project Management Tools: Trello, Slack, Asana, Microsoft Teams, Jira (8 years)
- Cybersecurity (3 years)
- JavaScript
- DevOps: Docker, GitLab CI/CD, Jenkins, Kubernetes, Ansible, Terraform (5 years)
- Team Collaboration: Strong team-building and communication skills (8 years)