Joshua Varney

BSc Computer Science Undergraduate

linkedin.com/in/joshua-varney-6b3b291bb

Details:

07469751964

Joshua.Varney1@gmail.com

London, UK

❖ Profile:

'An innovative Computer Science Undergraduate with educational and professional software engineering experience within financial markets and CRM platforms. Firm understanding of instruments and networking protocols used in electronic trading platforms. Proven ability to troubleshoot hardware, implement full-stack automotive applications, and resolve software issues in alignment with best practices (IaC), client requirements, and development cycles. Proficient in debugging, software testing (Selenium, Apache JMeter, Bazel), CI/CD pipeline automation using GitHub workflows, and containerization technologies (Kubernetes, Docker). Management of complex data structures across various programming languages, utilisation of cloud technologies (Google Services, AWS), and developing SQL stored procedures (MSSQL, SMSS)'.

Full-Stack Web Application, Process Comparison Tool
July 2024 - September 2024

Developed a comprehensive automotive comparison tool for managing networking communications (FIX) across company processes (AIEX) in multiple data centres located in the UK, US, and Tokyo. Each data centre supports four distinct environments: development, staging, demo, and production. The tool streamlines the management of SQL Server property configurations (SPs) and GitLab-stored file hierarchies, facilitating seamless process comparisons.

Leveraging a Flask web server with a modern JS frontend (React, Node.js), the system automatically identifies discrepancies between legacy and newly integrated processes across different environments. This functionality enables EU support teams to uphold the integrity of electronic trading protocols and communication pipelines between major asset managers, such as Fidelity and BlackRock. By preventing misconfigurations and process-related property overrides, the tool safeguards platform functionalities (C++, Web) and helps avert potential revenue losses due to process inconsistencies.

Blockchain-Based Real Estate Tokenization Application
September 2024 - Present

Led the development of a blockchain application using React, JavaScript, and TypeScript for real estate tokenization. Implemented Solidity smart contracts on the Ethereum blockchain for secure, fractional ownership and automated asset management. The platform allows users to buy, sell, and trade tokenized property shares, offering a scalable and secure solution for real estate investments.

Sep 2022 - **Sep 2025 (Graduation)**

> *Bachelors of Computer Science, Portsmouth University : On track for* **first class**

Sep 2020 - July 2022

> *A-Levels and EPQ, Lingfield College* : **A*** Computer Science, **A*** Psychology, **A*** EPQ, **A** Biology

➢ Degree Projects:

Facial Recognition System: Use of Tensorflow and GPU computing to train and evaluate ResNet50, MobileNetV2 and VGG90 facial recognition models to accurately identify masked and unmasked individuals efficiently.

Movie Recommendation System: Use of euclidean and cosine filtering to produce a ML model to recommend 10 best-matched movies based on tag-filtering and collaborative filtering.

Stock Analytics: Use of numpy, matplotlib, pandas, scalars, multilinear regression models to produce predictions of cryptocurrency and stock closing prices based on big datasets from Kaggle.

iOS Application: Dart/Flutter application that focuses on sustainability, usability, and minimising food wastage within a domestic setting. The app features a minimalist UI that receives user input and automates the top 10 best recipes under a second based on their food in their home environment.

Networking: Designed and evaluated a series of logical and physical networking designs for a given client and business model. Use of riverbed and Linux to gain delay statistics and monitor network traffic of physical networks.

★ Core Skills:

Project Management, Team Leadership, Software Development, Database Development, and Critical Thinking. Operating Systems, VMs, IT / Operational Support. Discrete Mathematics. Data Structure Implementation. Web Development. Process Improvements. Presentation Skills. Discipline. Software Cycles, Debugging and Testing. Code Best Practice.

Oct- July 2023
Software Engineer, Focus Group

Outline:

Enhancing CentreForms CRM by developing an intermediary software layer to enable efficient data communication between Microsoft Dynamics and Firebase. React with TypeScript and Tailwind CSS, I created responsive, user-friendly interfaces that improved usability and consistency across the CRM platform. On the backend, I built a middleware solution for real-time data synchronisation, utilising Firebase for data management and AWS to ensure a scalable, reliable infrastructure. Database interactions were managed through PHPMyAdmin, with a focus on data integrity and performance optimisation to support efficient CRM operations.

Key Achievements

Initialise GitHub workflows to automate testing with caching strategies, continuous integration, deployment, and improving system reliability.
PHP for backend integration, optimising the development process and system performance.
Contributions increased data accuracy and flow between Dynamics and Firebase, enhancing the CentreForms CRM's functionality and ensuring a seamless, robust platform for end-users.

Jul 2024 - Sep 2024
Software Engineer Intern, Tradeweb

Outline:

Full-stack developer, with a technical stack that includes Python, JS (React, Node.js), and SQL, utilising PowerShell and Git Bash for scripting, and leveraging Docker containers and Kubernetes for containerization. Role was to automate internal company processes. Possess strong professional presentation skills and a solid understanding of fixed income and financial instruments (ETFs, EUGV). Process management behind API interactions (FIX) between major corporations (e.g., BlackRock) and trading communications (RFQ, RFM) between clients and dealers.

Key Achievements:

Saved company money through removal of Araxis Merge licence.
Successfully executed my first professional release of maintenance software, actively used by the EU support.
Identified and resolved thousands of configuration discrepancies, leading to improved system performance.
Hands-on experience in making secure changes to live production systems, adhering to best practices in GitLab.
Improved configuration stability and maintenance by automating key internal processes.
Thorough understanding between different program language communication (API) and networking integrations.
Launched software executables to support-team VMs for team-usability.

Sep 2022 - Present
Computer Science and Maths Tutor, myTutor

Outline:

Leading A-Level and GCSE tutoring classes (3 to 6 students). Producing high-level presentations and providing extended knowledge of subjects and usage of multiple methods of application for examination materials. Provided over 200+ hours of Mathematic and Computer Science lessons.

Key Achievements:

Attaining a high satisfaction rating from over 125 students.
Highly ranked online presentation skills.
Average UPT of 2.23 and improved CVR of 12% with over 50+ large sales

- ● Extra-Curricular Activities

Member of the University of Portsmouth Software Development Team
Online Contribution to fix software issues and software testing e.g., SDKs.
Understanding and fixing issues through Ubuntu and Powershell.
Certification in JavaScript Algorithms and Data Structures, Responsive Web Design, Front-End Development Libraries.
Volunteer IT Support Role Portsmouth University (Software and Hardware) for Windows and MacOS.
GitHub Portfolio: https://github.com/Josh-Varney

- ❖ References:

Paul Worthy. Tradeweb, 1 Fore St Ave, Barbican, London EC2Y 9DT.
Dr Peter Clingen. Lingfield College, Racecourse Road, Lingfield. Surrey, RH7 6PH. Telephone: 01342 83240.
Dr Tamer Elboghdadly. Portsmouth University. Hampshire. PO1 3DJ.