

Marc Beepath

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Summary

Computer Science graduate from the University of Liverpool with a strong foundation in full-stack development, particularly in React (Typescript), Node, and MongoDB. Through a commercial internship at Octopus Energy and various personal projects, I have honed my skills in developing scalable web applications and collaborating effectively within Agile development teams.

Skills

- **Advanced React and TypeScript:** Proficient in building complex, high-performance web applications with React, utilizing TypeScript for type-safe code and better maintainability. Experience with React's ecosystem, including hooks and context for state management.
- **Web Development Technologies:** Comprehensive knowledge in web development, particularly with NodeJS, ExpressJS for backend services, and integrating RESTful APIs.
- **Database Management and Development:** Proficient in relational databases (e.g., PostgreSQL, MySQL) and NoSQL databases (e.g., MongoDB). Skilled in database design, normalization, and SQL querying. Experience in developing and optimizing database applications, ensuring data integrity, and implementing efficient data storage solutions.
- **Cloud Technologies and DevOps:** Basic knowledge of AWS and keen interest in expanding DevOps skills, with a focus on improving operational stability and deployment efficiency.
- **Agile and Scrum Practices:** Demonstrated success in Agile environments, contributing effectively to sprint planning, retrospectives, and daily stand-ups. Skilled in fostering teamwork and collaboration to meet project deadlines.
- **Software Development:** Strong proficiency in software development life cycles, design patterns, and best practices. Experience in designing, developing, and debugging code in a large corporate environment.
- **Version Control and Collaboration:** Advanced use of Git/GitHub for source control, branching strategies, and collaborative development processes.
- **Continuous Integration/Continuous Deployment (CI/CD):** Understanding of CI/CD principles and practices, including experience with automated testing and deployment pipelines.

Education

- **University of Liverpool** - BSc Computer Science (Hons) SEP 2021 - JUL 2024
 - Achieved top grades in key modules, including Intro to AI (85%), Analytic Techniques for CS (80%), and Software Engineering (75%).
 - Currently working on a comprehensive final year project involving the development of a full-stack application with an emphasis on database design and the integration of generative AI techniques for enhanced user experiences.
 - Coursework in Data Science, including Computer Vision, Big Data Analytics, and Data Mining.
- **Naparima College** - CAPE (A-Level equivalent) SEP 2013 - JUNE 2020
 - Consistently attained the highest grade (Grade I) in all CAPE subjects, including Physics, Computer Science, and Information Technology.
 - Ranked among the top 10 performers in the Caribbean region for Information Technology.

Work Experience

- **Software Developer Intern, Octopus Energy** JUL 2023 - AUG 2023
 - Collaborated within a small team to design and develop a new product ("New Updates") meeting AAA accessibility guidelines.
 - Contributed to Agile development, successfully implementing Scrum methodologies and delivering results in sprint planning sessions.
 - As part of a design sprint, used Figma to create prototypes for our product and receive feedback.
 - Integrated components into a SingleSPA and built the product using Typescript with React, enhancing user experience and scalability.
 - Used Storybook UI to build components and wrote component tests for each.

Personal Projects

- **Spenny - Web App with Generative AI Integration** ONGOING
 - Leading the development of a comprehensive full-stack web application, emphasising robust database design and generative AI techniques to enhance user experiences.
 - Implementing data visualisation using relevant charting libraries.
 - Creating detailed specification requirements based on research and user feedback to ensure project success.
- **Image Classification with a Convolutional Neural network** DEC 2023
 - Developed a robust convolutional neural network (CNN) utilising the Tensorflow framework.
 - Conducted comprehensive training and evaluation of the CNN using the Fashion MNIST dataset.
 - Continuously fine-tuned the model through iterative experimentation, achieving a 92% accuracy on the evaluation phase.
- **2D Convolution in Image Processing** NOV 2023
 - Recreated OpenCV's filter2D function using Numpy.
 - Methodically conducted testing and comparison of results by applying various filters with customised kernels.
- **Wildroutes - Full-Stack Web App** MAY 2023
 - Served as team lead for a group of six, successfully developing a user-friendly web application for discovering outdoor adventures.
 - Designed and implemented authentication using JSON Web Tokens, ensuring data security.
 - Led the frontend development using React and React Router, while the backend was developed using NodeJS, ExpressJS, and MongoDB.

Notable Achievements

- Awarded first place and £4,000 funding for my technology startup, Wildroutes, in my university's Enterprise pitching competition (sponsored by Santander) in May 2023.
- Received an Additional Scholarship in Computer Science from the Government of Trinidad and Tobago in June 2020 for placing among the top 10 A-Level performers in the country.