Marc Beepath

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Summary

Final-year Computer Science student at the University of Liverpool. Recently completed a commercial internship at Octopus Energy as a Software Engineer. Interested in pursuing postgraduate education in Data Science and Artificial Intelligence, with a specific focus on deep learning.

Education

- **University of Liverpool** - BSc Computer Science (Hons) SEP 2021 - PRESENT
  - 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, Kraken Technology (Division of 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.
  - Spearheaded coding standards, adhering to conventions and utilising tools like Prettier and ESLint.
  - Integrated components into a SingleSPA and built the product using Typescript with React, enhancing user experience and scalability.
  - Championed continuous integration through Git version control, ensuring seamless collaboration.

Personal Projects

- **Final Year Project - Full-Stack 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.
  - 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.

Skills

- Database interrogation and analysis using tools such as Apache Spark and SQL.
- Data visualisation and storytelling with tools such as Matplotlib, Seaborn, and Tableau to convey insights effectively.
- Deep learning using frameworks like TensorFlow and PyTorch for complex neural network architectures.

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.

References

Available upon request.