Nathan Card

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Summary

Results-driven and detail-oriented Graduate Computer Science student with a strong foundation in artificial intelligence, machine learning, and data analytics. Passionate about leveraging cutting-edge technologies to develop innovative solutions that drive business growth and enhance user experiences. Skilled in Python, Rust, JavaScript, and various frameworks and libraries to design, develop, and deploy software applications.

EDUCATION

University of York

York, UK

Master of Science in Computer Science: Artificial Intelligence

May 2023 - May 2025

• Relevant Coursework: Artificial Intelligence and Machine Learning, Advanced Data Structures and Algorithms, Applied Artificial Intelligence, Big Data Analytics, Advanced Programming Techniques, Software Engineering.

Projects

Generative AI Prompter | Python, Langchain, Streamlit, Ollama

Mar. 2024 – Present

- Developed a Python-based program to refine and optimize prompts using open source large language models (LLM) to perform natural language processing (NLP).
- Integrated Langchain's language model capabilities to fine-tune the prompt generation process.
- Designed a user-friendly interface for seamless prompt input, output, and iterative refinement.
- Documented the architecture, functionality, and usage guidelines for maintenance and future enhancements.

Pomodoro Timer | Rust, Next.JS, Tauri

Nov. 2023 – Jan. 2024

- Developed a cross-platform Pomodoro timer application using Tauri for full functionality on macOS and Windows.
- Utilized Rust for the backend, capitalizing on its performance and reliability, and integrated it with Next.js.
- Implemented the Pomodoro method, including work intervals and breaks, to help users boost productivity levels.
- Crafted a user-friendly interface with intuitive controls, visual timers, and customization options to cater to individual user preferences.

British Radio Tower Tracker | Python, Seaborne, NumPy, Pandas, Matplotlib

Sept. 2023 – Dec. 2023

- Built a robust data extraction and processing pipeline to track 180+ British radio towers, leveraging Python's capabilities for large datasets.
- Implemented data validation and error-handling to ensure integrity and reliability of the radio tower information.
- Designed data visualizations using Seaborn and Matplotlib, enabling users to easily interpret and analyze the radio tower data with a proven accuracy of 95+%.

EXPERIENCE

Student Tutor

October 2023 – Present

University of York York, UK

- Facilitate weekly tutoring sessions for CS students, leading to a 25% improvement in their project grades.
- Review code, debug issues, and provide constructive feedback to help students improve their programming skills and project deliverables.
- Demonstrate strong communication and interpersonal skills in facilitating discussions and fostering collaborative learning environments.

Head of Operations/Co-Founder

May 2015 – Sept. 2023

Wild Card Brew Co.

Trenton, Ontario, Canada

- Developed, managed, and updated an e-commerce store that generated \$1.5M+ in revenue over 6 years.
- Managed a team of 6 employees to launch a hard goods company that achieved Nationwide distribution.
- Fostered a collaborative and mentorship-focused approach to build organizational capacity.
- Led a successful exit of the company to a strategic buyer in 2023.

Technical Skills

Languages: Python, SQL (Postgres), No-SLQ (MongoDB), Langchain, JavaScript, HTML/CSS, Rust, GraphQL Frameworks: PyTorch, Jupyter, TypeScript, TensorFlow, React, Next.js, Node.js, TailwindCSS, FastAPI, Ollama Developer Tools: Git, Github, Docker, Google Cloud Platform, VS Code, LATEX

Libraries: pandas, NumPy, Matplotlib, Seaborne, scikit-learn, Django, Flask, Streamlit, Beautiful Soup, Tauri, Jest