Nathan Card

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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.

Trent University

Peterborough, ON

Bachelor of Arts Honours in History

Sept. 2010 - May 2015

EXPERIENCE

Student Tutor

October 2023 – Present

University of York

York, UK

- Facilitated weekly tutoring sessions for CS students, leading to a 25% improvement in their projects.
- Reviewed code, debugged issues, and provided constructive feedback to help students improve their programming skills and project deliverables.
- Demonstrated 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, ON

- Led a successful exit of the company to a strategic buyer in 2023.
- Managed a team of 6 employees to launch a beverage & merchandise company that achieved Province-wide distribution and started an e-commerce store in 2019.
- Fostered a collaborative and mentorship-focused approach when working in teams of all sizes to build organizational capacity.

Projects

Generative AI Prompt Generator | Python, Langchain, Streamlit, Ollama

Mar. 2024 - Present

- Developed a Python-based program to refine and optimize prompts using natural language processing.
- 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 program's architecture, functionality, and usage guidelines for easy 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, Seaborn, 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 mechanisms to ensure the 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+%.
- Applied Agile project methodologies to manage all communications, dependencies, and milestone attainment within the project deadline.

TECHNICAL SKILLS

Languages: Python, SQL (Postgres), JavaScript, HTML/CSS, Rust, Java

Frameworks: PyTorch, React, Node.js, TailwindCSS, FastAPI, Langchain, Ollama

Developer Tools: Git, Docker, Google Cloud Platform, VS Code, PyCharm, IntelliJ, Eclipse

Libraries: pandas, NumPy, Matplotlib, Seaborn, Streamlit, Tauri