Tyler Warwick

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Technical Skills

Languages: Typescript/JavaScript, C/C++, Java, Python, HTML/CSS, SQL, .NET, R, MATLAB, VHDL
Frameworks: React, Node.js, Express, Flask, Tailwind CSS, Mongoose, WordPress
Developer Tools: Git, MongoDB, AWS, Visual Studio, Vim, AutoCAD, SolidWorks
Libraries: pandas, NumPy, Axios, Jest

Experience

Data Analyst May 2023 – Sept. 2023
Community Living Wallaceburg *Wallaceburg, ON (Hybrid)*

- Integrated data from online sources via a RESTful API, resulting in a 75% reduction in manual entry, 95% improvement in data accuracy.
- Developed scripts for automated data cleaning, categorization, and formatting, leading to a 50% reduction in analysis time and a 60% improvement in report generation speed.
- Utilized JavaScript to optimize form behaviour to effectively reduce human error and false submissions by 40%.

Product Developer and Fulfillment Manager Jan. 2022 – April 2022
The Happy Era *Guelph, ON (Remote)*

- Developed a website using a content management system (CMS), skillfully integrating tailored HTML and CSS modifications to perfectly match the employer's criteria.
- Orchestrated a successful social media campaign that generated a 30% surge in website traffic and a 25% growth in followers across various platforms.
- Led independent research and development of a dry baking mix, directly contributing to a 15% increase in revenue.

Projects

Digit Recognition Network | *Python, NumPy, Linear Algebra* Aug 2023 – Sep. 2023

- Engineered a neural network without the use of libraries, employing linear algebra principles to achieve a 90% accuracy in recognizing handwritten digits.
- Conducted benchmarking of accuracy and computation time, encompassing diverse activation functions (ReLU, Sigmoid), optimization techniques (Batch Gradient Descent and Stochastic Gradient Descent), and hyperparameters (number of nodes and mini-batch size) ensuring optimal model performance.

StudyBuddy | *Typescript, Tailwind CSS, React, Express, MongoDB* May 2023 – Aug. 2023

- Designed a web application serving as an active recall-based memorization tool, enhancing learning outcomes through effective retrieval practice and fostering optimized information retention.
- Developed a full stack application by seamlessly integrating Express and a REST API to serve a React frontend
- Implemented a secure authentication system featuring encryption using JSON Web Tokens (JWT).
- Employed Tailwind CSS to craft a responsive frontend that dynamically adapts to various devices.

Autonomous Car | *C/C++, Circuitry* Sep. 2022 – Dec. 2022

- Led end-to-end development of an autonomous car using a microcontroller, seamlessly integrating sensors, DC motors, and applying mechanical engineering principles for optimal performance.
- Designed and prototyped breadboard circuits, optimizing electronic connections and ensuring reliable performance of the car's components.
- Experimented with integrating a variety of sensors, including ultrasonic and infrared to enable obstacle detection and line following.

Education

University of Guelph Guelph, ON
Bachelor of Engineering, Engineering Systems and Computing (Co-op) (4.0 GPA) *Sept. 2022 – Present*