Yash Bhavsar

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TECHNICAL SKILLS

Languages: Python, C, C++, JavaScript/TypeScript, Java, Perl, PHP
Frameworks/UI: React.js, Express.js, Node.js, OpenAI API, HTML/CSS, numpy, Tkinter, XML
Developer Tools: Linux/Unix, GitHub, MongoDB, Docker, Kubernetes, Postman, Perforce, Atlassian, SQL

EXPERIENCE

AMD Inc. | Software Engineer Intern   May 2023 − Apr 2024
- Led LINT-based code review across 10+ long term projects, addressing 100+ critical errors across cross-functional teams while ensuring clear and maintainable code
- Developed and deployed autonomous nightly test software using C Shell, streamlining code design and testing, resulting in 20+ hours saved per week
- Implemented a dashboard utilizing PHP, JavaScript, and Perl, to present real-time test results fetched from a SQLite database, reducing the weekly workload by removing the need for manual updates

Grey-Bruce Telecoms Inc. | Technical Support Specialist   July − Sept 2022
- Identified and managed 50+ client issues involving hardware (router, PoE, CPE, towers) and cable faultiness
- Initialized wireless/fiber connections on administrative side by accessing IP addresses and researching local towers

PROJECTS

Personal Project Manager   Sept − Oct 2023
- Designed a React based front-end that excels with HTTP requests, DOM manipulation, and routing to deliver a responsive and engaging user experience for managing and keeping track of projects
- Engineered RESTful API endpoints, maintaining data integrity through a structured Mongoose schema, comprehensive error handling and middle-ware
- Built a robust back-end by managing CRUD manipulated NoSQL data using Node.js, Express.js, and MongoDB

Autonomous Race-car   Jan − Apr 2023
- Developed an embedded ROS control system, utilizing a Linux environment for configuration, development, and testing, resulting in successful navigation through 4+ tested routes
- Implemented a self-driving algorithm with Python for feedback control, and Li-DAR data processing, and C++ for processing VESC state and IMU data to achieve precise speed and steering control

Withdrawal Monitor   Sept 2022 − Apr 2023
- Applied React libraries to create a front-end authentication page, utilizing react-router-DOM for navigation, hooks for form submission, and bootstrap for a refined user interface
- Generated HTTP requests through fetch calls, enabling user management, and ensuring security with session storage checks

Collatz Conjecture Visualizer   Dec 2022
- Created a resourceful and visually appealing graphical user interface in Python using Tkinter and PIL libraries
- Utilized matplotlib and numpy to generate five visualizations of a Collatz Sequence based on user input
- Adhered to event handling, input validation, and modular design principles, enhancing functionality of program

Autonomous Robotic Mapper   Mar − Apr 2022
- Engineered an embedded C program for a TI micro-controller, using I2C communication, sensor initialization, precise distance measurements, and motor control to parse raw Li-DAR data
- Created a Python script for organizing and visualizing data from micro-controller through UART communication and matplotlib, including data storage, organization options, and 3D scatter plot visualization

EDUCATION

McMaster University   Expected Graduation, May 2025
B.S in Electrical Engineering & Co-op   *Hamilton, ON*
Relevant Coursework: Data Structures and Algorithms(C++), Principles of Object Oriented Programming(Python), Microprocessor Systems Project(C, Python), Signals and Systems(MATLAB)