Yash Bhavsar

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Technical Skills

Languages: JavaScript/TypeScript, Python, C, C++, Java
Frameworks/UI: React.js, Express.js, Node.js, HTML/CSS, numpy, Tkinter, matplotlib, XML
Developer Tools: Linux/Unix, NoSQL, GitHub, MongoDB, Postman, Perforce, VSCode, Jira, Confluence, MATLAB

Experience

AMD Inc. | ASIC Design Engineer Intern — May 2023 – Apr 2024

- Led LINT-based quality assurance across three year-long projects, successfully addressing over 100 critical errors across cross-functional teams and meeting strict timelines
- Developed and deployed automated nightly LINT checks using C Shell, streamlining code integration assessment and eliminating manual command line operations, resulting in 20+ hours saved per week
- Utilized Python, Linux, and Perl to identify inconsistencies in macros and port connections, resulting in a 30% reduction in code review time by automating the identification of redundant and critical code segments

GBTEL 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 local towers

Projects

Personal Project Manager — Sept – Oct 2023

- Designed a React based front-end that excels with modular components, harnessing global state management, 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 a ROS-based control system in C++ for an autonomous race-car, processing VESC state and IMU data to achieve precise speed and steering control
- Implemented a self-driving algorithm with Python, incorporating Quadratic Optimization, feedback control, and Li-DAR data processing to successfully navigate through all 3 tested routes

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 professional 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 micro-controller, using I2C communication, sensor initialization, precise distance measurements, and motor control to parse raw Li-DAR data
- Created a Python script for 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.Sc in Electrical Engineering & Co-op — *Hamilton, ON*

Relevant Coursework: Data Structures and Algorithms(C++), Principles of Programming(Python), Microprocessor Systems Project(C, Python), Advanced Probability and Random Processes, Signals and Systems(MATLAB)

Seeking Summer 2024 Software Engineering Internships