Nelson Loop

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SKILLS

Languages: JavaScript, TypeScript, C++, C, C#, HTML/CSS, Python, Java, Ruby
Technologies: React, Next.js, Angular, Ruby on Rails, Material-UI, ROS, AWS, Docker, Redis, Unity, Git

EXPERIENCE

OnOrder   Jan 2024 – Apr 2024
Software Engineering Intern | TypeScript, Next.js, HTML/CSS, Material-UI, Redis, Puppeteer   *Toronto, ON*
- Integrated OpenAI and HuggingFace APIs to standardize user data and implemented Redis caching to optimize data retrieval, resulting in reduced API calls by 98% and a faster data normalization process by 85%.
- Leveraged TypeScript, Material-UI and integrated responsive web design principles to seamlessly translate Figma designs into a Next.js application, ensuring optimal functionality across all screen sizes and enhancing overall user experience.
- Employed Puppeteer to systematically extract product details from diverse websites for over 10,000 products, facilitating comprehensive data collection.

Swap Robotics   May 2023 – Aug 2023
Web Developer | JavaScript, HTML/CSS, AWS, Docker, PostgreSQL, Material-UI, Jest   *Kitchener, ON*
- Used JavaScript, HTML, CSS, and Material-UI to implement 15+ user-requested features to a Dockerized React application, including monitoring critical robot systems and implementing fail-safe protocols to prevent autonomous operations in case of system failures.
- Integrated Google Maps APIs to simultaneously track and visualize the real time locations of 20+ robots.
- Developed REST APIs to interact with AWS S3 Buckets as well as PostgreSQL db through the Prisma ORM.

Swap Robotics   Sept 2022 – Dec 2022
Autonomous Robotics Software Developer | Python, ROS, Foxglove   *Kitchener, ON*
- Utilized Python, ROS, and Foxglove to develop code for real-time data tracking, reporting, and visualization of autonomous robots.
- Retrieved and monitored real-time safety diagnostics of a motor MCU from a CAN bus in Python, to enhance safety measures in robot operations.

Tuq Inc.   Jan 2022 – Apr 2022
Software Developer | Ruby, Ruby on Rails, Angular, TypeScript, HTML   *Waterloo, ON*
- Designed and developed applications based on client specifications, employing Ruby on Rails and Sorbet for backend development, in conjunction with Angular, TypeScript, and HTML for frontend implementation.
- Developed REST APIs that interact with Active Record models, implemented unit tests, and documented with Swagger API for applications, enhancing application reliability and company software quality.
- Met with clients to discuss specifications for applications, and designed Entity-Relationship Diagrams based on those specifications, ensuring alignment with client needs and project success.

PROJECTS

Portfolio Website | *TypeScript, Next.js, HTML/CSS, Material-UI, Vercel*
- Developed a professional portfolio website showcasing my previous work experiences, skills and projects.
- Utilized Next.js, TypeScript, HTML, CSS and the Material-UI library, and hosted on Vercel.

2D Grid-Based Strategy Game | *Unity, C#*
- Learned Unity and C# to create a 2D grid-based strategy game.
- Utilized Jira for tickets and organization during development.

EDUCATION

University of Waterloo   Sept 2021 – Present
BASc. Computer Engineering, Honours, Co-operative Program   *Waterloo, ON*
- Third year undergraduate student.
- Expected Graduation April 2026.