Tyler O'Neil

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Experience

Exchange Solutions Inc. **Toronto, Ontario**

Software Developer May 2025 – Present

- Develop scalable features for a large-scale loyalty platform, contributing across frontend (**React, TypeScript**) and backend (**AWS serverless microservices, TypeScript**) development in a production environment.
- Ensure code quality and reliability by writing and maintaining **unit tests** and participating in peer code reviews.
- Apply **agile** methodologies to drive new feature development, optimize system performance, and ensure code maintainability.
- Work closely with senior engineers and product owners, further deepening technical expertise and product knowledge to deliver solutions impacting millions of end users.

Software Developer Intern May 2024 – August 2024

- Contributed to both frontend (**React, TypeScript**) and backend (**AWS serverless microservices, TypeScript**) development on a large-scale, production-grade loyalty platform.
- Developed practical skills in **cloud infrastructure (AWS)**, **CI/CD (Jenkins)**, and Atlassian tools in a collaborative, fast-paced environment.

Software Developer Intern (Innovation Labs) May 2023 – September 2023

- Developed proof-of-concept **Retrieval Augmented Generation (RAG)** AI agents using **Node.js** and **OpenAI APIs**, in direct collaboration with the Director of Innovation Labs.
- Conducted **research and rapid prototyping** that directly contributed to the adoption of **generative AI** capabilities in the company's core loyalty product.

PresenTEC Solutions **Vaughan, Ontario**

Front-End Developer Intern December 2022 – April 2023

- Maintained and improved company website functionality using **WordPress** and custom development.
- Implemented UI improvements following company brand guidelines to ensure consistent user experience.

Projects – More information available on my Website ↗

Nest – Typescript, Next.js, NextAuth.js, PostgreSQL, Prisma, Tailwind CSS, Stripe

- Designed and developed a minimalist investment tracker that provides users with personalized insights and projections for their portfolios, supporting multiple accounts and asset types.
- Implemented secure **Google sign-in**, account management, and authorization features to protect user privacy and ensure data integrity.
- Integrated subscription billing (**Stripe**) and direct brokerage connections (**SnapTrade**), enabling users to track investments manually or automatically with real-time data.

Duordle ↗ – Typescript, React.js, Node.js, Express.js, MongoDB, Tailwind CSS, Docker, Jest

- Developed a multiplayer online word game where users collaboratively guess words, utilizing **Socket.io** for real-time communication between players.
- Containerized the application with **Docker** to enable streamlined deployment and seamless scalability.
- Implemented comprehensive unit testing using **Jest** to ensure code reliability and robustness throughout development.
- Set up a **CI/CD** pipeline and utilized **Git** for version control, streamlining the development workflow and enabling efficient project management while working independently.

Education

McMaster University **Hamilton, Ontario**

Bachelor of Technology, Software Engineering Technology

Pursuing part-time while working full-time as a developer | VP of Projects, McMaster Open Source Society (MOSS)

Technical Skills

Languages: Javascript/Typescript, Python, Java, C#, Bash, SQL, HTML, CSS

Technologies/Frameworks: Node.js, Express.js, React.js, Next.js, Tailwind CSS, Bootstrap, Jest, .NET, Spring Boot

Databases: MySQL, PostgreSQL, Oracle SQL, SQLite, Snowflake, MongoDB

Development Tools: AWS, Docker, Linux, Git, GitHub, Jenkins, Postman, Stripe, Jira, Bitbucket, Confluence