Tyler O'Neil

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Experience

Exchange Solutions Inc. — Toronto, Ontario

Software Developer — May 2025 – Present

- Implement production-grade features across the loyalty platform's microservices ecosystem, focusing on AWS serverless architectures and scalable backend integration.
- Improve reliability and maintainability by writing unit tests, reviewing peer code, and enforcing development best practices.
- Collaborate with product owners and senior engineers to deliver performant, customer-focused enhancements in an agile environment.
- Optimize APIs and service logic to reduce latency, increase clarity, and support long-term platform scalability.

Software Developer Intern — May 2023 – August 2024

- Developed proof-of-concept Retrieval-Augmented Generation (RAG) agents using Node.js and OpenAI APIs, collaborating directly with the Director of Innovation Labs to accelerate early generative AI adoption within the company.
- Conducted rapid prototyping, technical research, and experimentation to evaluate feasibility and impact of emerging AI technologies for integration into the core loyalty product.
- Assisted engineering teams with debugging, small feature implementations, and refactoring tasks, strengthening foundational skills in TypeScript, cloud workflows, and agile development practices.

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, Vercel, Docker, Linux, Git, GitHub, Jenkins, Postman, Stripe, Jira, Bitbucket, Confluence

Certifications: AWS Certified Cloud Practitioner, Bloomberg Market Concepts (BMC)