Ryan Yeh

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EDUCATION

McMaster University — 2019 - 2025
B. Eng Software Engineering (Co-op) — GPA: 11.71/12.0
Awards: Dean's Honour List (for all years enrolled), University Senate Scholarship

SKILLS

Languages: JavaScript/TypeScript, Python, HTML/CSS, SQL, GraphQL, Visual Basic for Applications
Frameworks: React, Vue.js, Flutter, Material UI, Vuetify
Tools: Node.js, MongoDB, Git/GitHub, GitHub Actions, TestProject, Cypress, Postman, Wireshark, Node-RED, Jira, Microsoft Power BI

EXPERIENCE

Freelance Developer | *Self-employed, Remote* — Jan 2025 – July 2025
- Developing a multi-agent workflow for use in a dental clinic setting that triages and manages requests for staff scheduling and technical support to simplify and automate existing management systems utilizing PydanticAI
- Designed and implemented AI agents with specialized roles, enabling seamless handoffs between agents for efficient issue resolution
- Integrated Firestore to store and manage message history, ensuring persistence and context retention across interactions
- Developed an API to facilitate structured communication between external clients and AI agents, enabling real-time request handling using FastAPI

Data & Software Development Intern | *Ontario Power Generation, Bowmanville, ON* — May 2024 – August 2024
- Spearheaded the development of a web dashboard that streamlined tasks performed by the Fuel Handling Operations team by consolidating critical data for improved accessibility and efficiency using Angular/ASP.NET
- Created 3 dynamic Power BI dashboards, enabling tracking and analysis of key metrics, including project spending
- Automated complex, repetitive tasks by implementing VBA macros in Excel spreadsheets, reducing manual effort and increasing productivity

Software Developer Co-op Student | *Ontario Ministry of Health, North York, ON* — May 2023 – August 2023
- Built and maintained a web application to help Ontario healthcare facilities create and manage financial templates and data using the MERN stack
- Led development of platform organization management functionality and corresponding database CRUD resulting in streamlined user workflows
- Enhanced database query performance related to organization management, resulting in a 30% improvement in retrieval speed
- Developed and maintained a Postman test suite consisting of 15+ tests to ensure backend reliability and functionality
- Led discussion during daily stand-ups, enhancing team collaboration

Software Engineer & QA Intern | *Sentry Health, Remote* — May 2021 – August 2022
- Developed and maintained 30+ regression tests using Cypress and Postman, reducing QA workload and streamlining the testing process
- Conducted manual unit and integration testing on 20+ work items per sprint
- Led development of a web application for managing an internal pharmacy database with 100+ records, enabling staff to easily CRUD Firestore data using Vue/Vuetify for the frontend and GraphQL for the backend
- Built an application to convert PDFs to base64 and send data to an online fax endpoint, reducing manual workload for clinic staff using Node.js
- Automated file uploads to Firestore by creating a Node-RED workflow that monitors and processes new files, eliminating manual administrative tasks
- Used Jira to track bugs and manage development tasks, improving team visibility and ensuring faster issue resolution during sprints

Projects

Portfolio Website | *React, CSS, Node.js, Git* July 2025 – Present
- Developing a personal website using React.js and CSS to showcase projects, skills, and experience.
- Leveraging Material UI (MUI) for responsive, theme-driven UI components and consistent design system.
- Utilized React Router for single-page application navigation and client-side routing.

Grocery Spending Tracker | *Flutter, JavaScript, PostgreSQL, Git* September 2023 – March 2024
- Developed a mobile application for a fourth-year Capstone Project to help low-income families track grocery spending
- Enabled users to scan receipts and receive detailed spending metrics, along with recommendations for cheaper alternatives based on purchase history
- Focused on frontend development and implemented Optical Character Recognition (OCR) to streamline receipt scanning and data extraction

TeachAI | *React, JavaScript, HTML/CSS, Git* January 2023
- Built an intuitive web application that helps teachers generate lesson plans and teaching ideas based on a search prompt using OpenAI's Davinci 003 text model
- Developed backend modules, including API integration and response parsing, while also contributing to frontend UX design and styling