

Daniel Chua

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Education

University of Toronto

Honors Bachelor of Science, Computer Science

Expected December 2023

GPA 3.26/4.0

Work Experience

Ontario Institute for Studies in Education (OISE) – Full Stack Developer (Part-time)

May 2022 – Present

- Created a group management tool, facilitating resource distribution amongst users with varying authorization levels
- Implemented a logging functionality that records user actions over WebSockets and HTTP, allowing educators to measure student engagement based on their interactive participation
- Spearheaded the implementation of unit and integration tests using Jasmine to validate crucial features
- Investigated and resolved a duplicate session issue reducing the average number of WebSocket clients by 30%

Verto Health – Junior Full Stack Developer (Co-op)

January 2023 – August 2023

- Architected the same-site integration of a React application into an Angular codebase, resulting in 85.7% code reuse
- Developed customizable UI components and services in Angular and documented their use cases in Storybook, leading to streamlined development timelines across multiple projects
- Built a Python-based (Scrapy) web crawler to retrieve over 600 resources, employing NLP methods for extracting fields from unstructured free text and adapting site material into a predefined SQL (PostgreSQL) schema
- Collaborated with designers to ensure full responsiveness for a mobile-centric Angular application, contributing to a successful shortlisting in a request-for-proposal (RFP) presentation
- Created an extensible survey response feature using Flask, facilitating detailed report generation in external services

University Health Network (UHN) – Full Stack Developer (Part-time)

May 2021 – August 2021

- Improved scalability by decoupling a file storage API, enabling submissions across multiple 3rd party integrations
- Implemented a responsive WYSIWYG editor in JavaScript and HTML/CSS that managed user content using SQL (MySQL), allowing research students to take and compare notes between peers
- Identified and resolved over 30 software bugs, resulting in enhanced application stability and usability

Ross Video – Embedded Software Developer (Co-op)

January 2021 – April 2021

- Applied in-depth understanding of software systems and designs to troubleshoot issues in a large C codebase (ex. correcting hardware status behaviors, fixing incorrect register writes, etc.)
- Developed the software implementation of an analog audio embedder and de-embedder, maximizing code reuse and minimizing risk to existing systems by cross-referencing documentation and hardware specifications
- Built professional communication skills when meeting with key stakeholders regularly to discuss changes and requirements through demos

Projects

Spotify Recommendations – <https://github.com/DCH25/spotify-recommendations>

- Built a React application to generate music recommendations from a Spotify playlist, enabling users to improve suggestions over time by configuring preferred musical attributes and rating the results
- Created a tree-like recommendation schema in GraphQL and MongoDB, allowing users to generate alternatives from specific starting points in their configuration history
- Deployed the project to a DigitalOcean VM with Docker Compose using Nginx as a reverse proxy

Skills

Languages: JavaScript, TypeScript, HTML5, CSS3 (SASS), Ruby, Python, C

Frameworks/Databases: Angular, Vue, Ruby on Rails, React, Flask, Express, MongoDB, SQL, GraphQL, Redis

Tools/Testing: Git, Jira, Postman, Docker, Storybook, Cypress, Rspec, Jasmine, Linux (CentOS), Bash