Daniel Zhang

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Education

University of Toronto　　　　　　　　　　　　　　　　　　　　Sept. 2019 – June 2024
Honours Bachelor of Science in Computer Science　　　　　　　　　　CGPA: 3.47 / 4.0

Experience

Full Stack Developer (Work Learning Experience)　　　　　　　　November 2023
Service Delivery Data Hub Project　　　　　　　　　　　　　　　　Toronto, ON
- Contributed to the development of an end-to-end testing platform with Cypress and JavaScript for a service delivery data management and analysis tool used by local agencies
- Enhanced testing efficacy by developing comprehensive test cases for critical pages and ensuring thorough validation of key functionalities for manipulating client data

Software Developer Intern　　　　　　　　　　　　　　　　　Jan. 2022 – Aug. 2022
Caseware International　　　　　　　　　　　　　　　　　　　　Toronto, ON
- Developed a routing microservice using Java, Spring Boot, AWS DynamoDB, and Redis, enhancing system efficiency and scalability while achieving 93% code coverage through thorough unit testing with Mockito and JUnit5
- Created a monitoring dashboard with New Relic, allowing for real-time detection of service disruptions and ensuring seamless client experience by promptly notifying on-call team members of critical issues
- Reworked a multi threaded file upload process in C++ to optimize performance for larger clients, resulting in fewer API requests and reduced upload times

Full Stack Developer Intern　　　　　　　　　　　　　　　　May 2021 – Aug. 2021
Skatescribe Corporation　　　　　　　　　　　　　　　　　　　Markham, ON
- Designed a new communication and safety system using Angular, Python Flask, and SocketIO, allowing operators to quickly detect errors and unwanted actions
- Developed an embedded Python-based automated tooling system for a Tormach CNC milling machine, eliminating manual tool life tracking and reducing human intervention by 70%

Projects

Ecosquad | *React, TailwindCSS, ExpressJS, PostgreSQL, MapLibre GL, Meilisearch, Auth0*
- Developed a citizen scientist web app enabling users to share and explore natural discoveries, featuring an interactive map to enhance user experience
- Implemented a robust RESTful API to facilitate data exchange, enabling seamless communication between all components while supporting scalable future development

Pintos | *C*
- Enhanced kernel performance by optimizing time management to eliminate busy waiting, resulting in improved system efficiency
- Implemented advanced priority scheduling to improve thread management and processor utilization, effectively addressing priority inversion through priority donation mechanisms
- Developed a multilevel feedback queue scheduler to optimize thread management, balancing diverse scheduling needs and reducing average response time for system tasks

Technical Skills

Languages: Java, Python, C/C++, SQL (PostgreSQL), NoSQL (MongoDB), JavaScript, Typescript, HTML/CSS
Frameworks & Libraries: React, Node.js, ExpressJS, Flask
Tools and Technologies: Git, Docker, Linux/Unix, JIRA, Postman