

Allan He-Chen

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Education

Toronto Metropolitan University

BSc in Computer Science

Toronto, Canada

Sep 2021 - Exp. Apr 2026

- **GPA:** 4.23/4.33
- **Relevant Courses:** Data Structures and Algorithms, Operating Systems, Linear Algebra, Software Engineering, Web Systems
- **First-year Computer Science Award:** Highest grade in Computer Science Courses

Experience

Ontario Power Generation

Supply Chain Computer Developmental Co-op

May 2023 - Exp. Dec 2023

- Built a threaded database query program using pyodbc and openpyxl, reducing processing time from hours to minutes by generating efficient queries for a database with millions of rows.
- Created a web scraper in TypeScript to collect data for over 2500 orders, leading to a reduction in workload equivalent to the efforts of five team members and saving tens of hours of valuable time and effort for the team.
- Collaborated with my supervisor to translate and implement conceptual ideas into intricate database queries into a program that streamlines manual item searches, transitioning from individual queries to efficient batch processing.
- Addressed diverse requests from team members, demonstrating adaptability and a deep understanding of system documentation. Conducted thorough analysis and leveraged programming skills to extract and compile complex reports tailored to individual requirements, contributing to enhanced efficiency and streamlined data access for the entire team.

Projects

allanhechen.me Server Stack

Linux services and web server

May 2023 - Present

- Configured and administered Ubuntu Server infrastructure, overseeing system configuration, software installation, security updates, and performance optimization, ensuring reliable and secure operations for critical applications.
- Developed a portfolio website linked above to showcase my projects.
- Utilized Docker to containerize web applications, enabling streamlined deployment, scalability, and easy management of dependencies, shown by managing over 40 containers on one machine.

Serenity

Note taking REST API

Apr 2023

- Designed a relational database consisting of more than 5 tables to support note taking, note sharing, and group management.
- Created a custom JWT middleware for Express, providing a secure way to authenticate and authorize users based on predetermined permissions.
- Routed a RESTful API with Express by exposing different endpoints to perform CRUD operations on the hosted database.

Supplant

Text substitution web app

Oct 2022

- Coordinated ideas and opinions from multiple team members, resulting in a working prototype in under 40 hours.
- Delegated tasks to team members based upon experience and wants, resulting in a good working atmosphere.
- Hosted the project using Django, providing a means for communication between the user interface and the backend.

Skills

Languages Python, Java, C, Rust, HTML, CSS, JavaScript, TypeScript, SQL

Tools Docker, Git, Node.js, Express, BASH, Excel, Access, ODBC Databases, Power BI