

# Wing Hin Nigel Tan

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## Education

**University of Toronto | Mississauga, Ontario**

September 2020 – May 2024

Honors Bachelor of Computer Science, GPA 3.90

Honors: Dean's List (2020/21 (1<sup>st</sup> Year), 2021/22 (2<sup>nd</sup> Year), 2022/23 (3<sup>rd</sup> Year))

## Experience

**Forms Synttron Information | Hong Kong, China**

May – August 2023

**Software engineer intern**

- Developed software that automates the process of bank regulation using python and Microsoft azure, reducing 3 months of manual work into 2 hours.

**Leawell International Limited | Hong Kong, China**

May – August 2022

**Web Designer Intern**

- Revamped corporate website designs, functionality, and navigation using WIX.
- Designed and developed site content and graphics and enhanced website functionality.
- Reviewed user experience with management team and made improvements to accommodate technical or business concerns.

## Projects

**Parcube – React Native, Firebase, Firestore, GCP, TypeScript**

*A mobile app designed to revolutionize the parking industry by decentralizing parking ownership.*

- Implemented cloud functionality using Google Cloud Platform to enable geocoding and auto complete address.
- Scraped over 100 parking spots from SpotHero to provide accurate and up-to-date parking availability information near Toronto.
- Worked collaboratively with a team of seven and utilized Git for version control and Agile methodologies to ensure timely and efficient project completion.

**EasyChef – React, Django, Bootstrap, Python, JavaScript, SQLite**

*A recipe search engine that allows users to search for recipes based on ingredients they have on hand.*

- Designed a responsive front-end using React, Bootstrap and Material UI.
- Implemented token authentication, user management using Django REST framework.
- Developed recipe creation and management, shopping List functionalities' backend using Django and PostgreSQL.
- Created an endpoint for image and video upload and deletion using Django.
- Implemented pagination in recipe display to enhance user experience.

**Three Musketeer – Java, JavaFx**

*A modernized version of the eponymous classic abstract strategy board game.*

- Implemented an AI opponent using the minimax algorithm with alpha-beta pruning, AI wins human 80% of the time.
- Implemented the GUI interface using the MVC pattern.
- Implemented the undo and redo functionality using the memento pattern.
- Implemented an evaluation system using observer pattern to tell users how good their move was based on our algorithm.

## Skills

**Programming:** Java, Python, C, HTML, CSS, JavaScript, TypeScript, SQL, Bash, RISC-V Assembly

**Technologies/Frameworks:** React, React Native, NextJS, Node.js, Material UI, Tailwind CSS, MongoDB, Postgresql, Neo4j, Firebase, Django, Docker, Vite, Linux (Ubuntu, Kahli), Git, GitHub