Byron Tung

btung1@ualberta.ca ● github.com/byrontung ● byrontung.com

EDUCATION

University of Alberta | Bachelor of Science - Specialization in Computer Science   Expected Nov 2025

COURSES

Software Process and Product Management, Software Quality and Testing, Web Applications and Architecture, Operating Systems, Computer Architecture, Intro to Software Engineering, File and Database Management

SKILLS

- **Languages/Frameworks:** Python, Java, React, SQLite, MySQL, JavaScript, HTML, CSS, C
- **Tools:** SonarQube, JMeter, Bash, Git, Selenium, Firebase, Docker, Django, PITest

WORK EXPERIENCE

Full-Stack Developer - Edmonton SafeWalk   Jan 2022 - June 2022
- Helped over 50 individuals complete walks with volunteers using **React**, **Django**, and **MySQL**.
- Optimized frontend by implementing an admin dashboard using **DevExtreme Data Grids** to improve visibility and modification of users for administration, which decreased the time for frequent user-related tasks by 20%.
- Achieved 40% reduction in **API calls** through batch processing of **Google Maps API** with added debounce interval.
- Ensured functionality using testing frameworks such as **Selenium**, **Jest**, and **Django REST API**.

Research Volunteer - University Of Alberta   Apr 2020 - Aug 2020
- Worked with a team to meet and discuss the professor's goals on his research on periodic movement in a polygon.
- Tested **Java** application to create tickets for the development team to ensure **functional requirements** are met. **Optimized** searching process by implementing union search on multiple lists of periodic movements.

PROJECTS

Social Distribution   ⌽
- Created a social media server that was deployed on **Heroku** which focused on creating and interacting with endpoints to communicate with other servers' endpoints using **HTTP requests**, payloads, and query strings.
- Developed an adaptor class that enabled developers to streamline and enhance the management of external server requests, resulting in a **20%** increase in developer productivity.
- Built with **React**, **Django**, and **MySQL** to facilitate interactions with other servers using HTTP requests.

Experimently   ⌽
- Developed an **Android** app that collects experiments, results, and chats from users using **Firebase**.
- Designed and implemented the data collection process by creating user interfaces, connecting **API endpoints**, and storing data on **Firebase** to allow for other members to access user data with ease.

Washington EV Trends   ⌽
- Built a **full-stack web app** to analyze and visualize EV registration data from the Washington State DOL.
- Developed a **RESTful API** with **Express**, **PostgreSQL**, and **pg-promise** to create dynamic queries and safe parameterization.
- Visualized data using **React** and **ChartJS** to explore relationships and trends across Washington state.

DragonShell   ⌽
- Built a **Unix-like shell** using **C** that supports process creation, command execution, I/O redirection, and piping.
- Supports features such as background processes, measuring user and system time, and integrated signal handling to ensure gracefully completion.

LEADERSHIP

Badminton Assistant Coach - NAIT   Sept 2022 - Present
Badminton Coach - B-Active Badminton Club   July 2016 - Sept 2018
Waiter - Tropika Thai Malaysian Cuisine   Sept 2017 - Present