

Brendon Kalman Tsim

contact@brendontsim.com | linkedin.com/in/brendontsim | brendontsim.com | github.com/bktsim

EDUCATION

University of British Columbia

Sep 2020 - May 2024

BSc, Major in Computer Science

Vancouver, BC

- 4.0 GPA; 93% Computer Science Average
- Coursework: Data Structures & Algorithms, Computer Hardware & Operating Systems, Computer Networking, Machine Learning, Distributed Systems, Parallel Computation, Reliable Software

WORK EXPERIENCE

University of British Columbia

Sep 2021 - Present

Undergraduate Teaching Assistant, CPSC 121, CPSC 213, CPSC 313

Vancouver, BC

- Hosted labs, tutorials and office hours for UBC's computer systems & operating systems courses. In the process, taught & debugged students' asynchronous and multi-threaded code in C.

Arista Networks

Sep 2023 - Dec 2023

Software Developer Intern, Platform

Vancouver, BC

- Extended support for Arista switches on SONiC, an open-source network OS with C++ and Python.
- Improved user experience by implementing CLI command support for multi-asic devices in Python.
- Prototyped drop counter monitoring for a future release with C++ to increase system observability.

Alida

Jan 2022 - Aug 2022

Software Developer Intern, Surveys

Vancouver, BC

- Created web-accessible (WCAG) question types for Surveys using React, TypeScript & tests in Jest.
- Owned architectural changes for migrating the frontend app to a new backend API contract.
- Reduced pipeline blocks from non-deterministic failures by introducing new test infrastructures.

Kai Shing Management Services Limited

May 2021 - Jul 2021

Software Developer Intern, IT Headquarters

Hong Kong SAR

- Eliminated manual workflows by creating a management dashboard in Java, Spring MVC and SQL, allowing staff to update building information and notices without manual IT staff intervention.
- Processed API endpoints in APIM with scripts in Liquid and C# for an app with 10k+ active users.
- Handled processing & analysis of air-quality data from 25+ IoT devices with Java and SQL.

PROJECTS

Raft (as described in the paper presented in [ATC2014](#)) | Go

- Implemented Raft, a distributed systems consensus protocol for managing replicated logs.

Hashbot | React, Next.js, TypeScript

- Created hashbot.io, a website advertising a Discord anti-spam bot monitoring over 10mil+ users.

ROBLOX Freelance Game Development | Lua

- Produced updates across various games, notably *Starship Roleplay* with 1.2M+ total plays.

TECHNICAL SKILLS

Languages: C, C++, TypeScript, Java, Python, Go (Golang), JavaScript, C#, SQL, HTML, CSS, Lua, Promela

Frameworks: React, Next.js, Spring MVC, JUnit, Jest, Mocha, Chai, Flask, JSP, Struts, Material-UI, Spin

Developer Tools: Git, Linux, Heroku, Google Apps Script, Qlik Sense, REST, WCAG

Spoken Languages: English, Chinese (Cantonese, Mandarin), Japanese (JLPT N1 - Business Level)