



Shukan (Maxwell) Yang

Year 4, Honours Computer Science, Software Engineering Option

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TECHNICAL SKILLS

Programming:	Java, C/C++, C#, JavaScript (TypeScript), Rust, Python, Dart, Assembly
Web:	HTML, CSS / SCSS, XML, PHP, jQuery, React.js, Vue.js, Express.js
Mobile:	Android, iOS (Objective-C), React Native, Flutter
Database/testing:	MySQL (SQL), MongoDB (NoSQL), JUnit, Chai, Mocha, Cypress, Github Actions
Cloud:	AWS, Firebase
Tools/Environments:	Git, Node.js, Postman, Docker

WORK EXPERIENCES

Computer Science Research Assistant, UBC (full time, co-op)	May 2021 - Current
<ul style="list-style-type: none">Worked on understanding the current information required by Prusti (a verification tool for Rust), implemented different designs for data type representations of a Rust program and decouple much of Prusti's code logic from the specific workings of the Rust compiler	
Mobile Software Developer, PDFTron (full time, co-op)	Sept 2020 - Apr 2021
<ul style="list-style-type: none">Developed and maintained React Native and Flutter wrapper for PDFTron SDK, in Android (Java), iOS (Objective-C), React Native (JavaScript/TypeScript) and Flutter (Dart)Wrote scripts for higher automation in mobile development cycleContributed to and supported technical documentation for productsProvided customer technical support (issues, tickets) for mobile SDKParticipated in technical/design reviews and group problem solving activities	
Computer Science Teaching Assistant, UBC (part time)	Sept 2019 - Apr 2020
<ul style="list-style-type: none">Assisted students in course materials during labs and tutorialsDesigned pre-class assignments, quizzes and exams for the coursesAnswered questions asked by students on online forum (piazza)Courses: CPSC 313 is a low-level course about the fundamentals of computer hardware and operating system, CPSC 210 is a software-engineering course which emphasizes on Objected-oriented programming in Java, and CPSC 121 is a preparation course to algorithm and data structures	

TECHNICAL PROJECTS

ACADEMIC

Employee Directory Viewer (8-person, project manager)	Jan 2021 - Apr 2021
<ul style="list-style-type: none">Applied a combination of waterfall and agile methodology, built a serverless employee directory application for Associated EngineeringContained a search page with filters and sorting function, dynamically	



generated org chart, and contractor information editing page

- Implemented front-end with React.js and Material-UI, which is hosted in S3 buckets and connected to the C# back-end through API gateways
- As the project manager, regularly hosted meetings, documented plans, requirements and progress in JIRA to ensure high work flow

Application Manager (3-person)

Jan 2020 - Apr 2020

- Constructed a website for mobile application analysis with database, which provides functions such as rating, sorting, and viewing application in user-defined order
- Realized client-side behaviors with HTML, CSS, JavaScript, server-side with PHP and MySQL for query handling

Fundamental Racket Compiler (3-person)

Jan 2020 - Apr 2020

- Created a Racket/Scheme-based compiler that parses Racket codes and translates it into executable x86 assembly code by passing through more than 20 levels of compiling
- Explored multiple low-level aspects of Racket, from basic data structures such as vectors and pointers, to complex code structures such as recursions with local variables of varying life-cycles

PERSONAL

Online Team Communication Tool (1-person)

Dec 2020 - Current

- An online platform which allows team members to communicate and send files under configurable channels in real time
- With Node.js, front-end was built using React.js, while back-end was built with Express.js and MongoDB

COMPETITIONS

IEEEExtreme Programming Competition 13.0 (3-person)

Oct 2019

- Team (with 2 other team members) ranked 1st among all 55 teams in Canada, and top 5% globally
- Solved problems mainly about algorithm design and data structures in 24 hours

EDUCATION

Bachelor of Science

Sept 2018 – Apr 2023 (Expected)

The University of British Columbia (UBC)

Vancouver, BC

- **Major:** Honours Computer Science, Software Engineering Option
- **Current Year Standing:** 4
- **GPA:** A
- **Awards:** UBC Dean's list, UBC Science Scholar, UBC Trek's Excellence scholarship (top 5%)
- **Courses (grade, average):** Intermediate Algorithm Design and Analysis (98, 86), Computer Hardware and Operating Systems (92, 81), Software Construction (98, 74), Models of Computation (99, 75)