# Shukan (Maxwell) Yang

## Year 4, Honours Computer Science, Software Engineering Option

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#### **TECHNICAL SKILLS**

**Programming:** Java, C/C++, C#, JavaScript, TypeScript, Python, Racket, Dart, Assembly Web: HTML, CSS / SCSS, XML, PHP, jQuery, React.js, Vue.js, Express.js, Rest API

Mobile: Android, iOS (Objective-C), React Native, Flutter

**Database/testing:** SQL, MySQL, MongoDB (NoSQL), JUnit, Yarn, Chai, Mocha

Tools/Environments: Git, Node.js, Postman, Docker

#### **WORK EXPERIENCES**

## Mobile Software Developer, PDFTron (full time, co-op)

Sept 2020 - Current

- Developed and maintained React Native and Flutter wrapper for PDFTron SDK, mainly in Java for Android, Objective-C for iOS, JavaScript/TypeScript for React Native and Dart for Flutter
- Wrote scripts for higher automation in mobile development cycle
- Contributed to and supported technical documentation for PDFTron's products
- Provided customer technical support by answering/solving customer questions related to mobile SDK
- Participated in technical/design reviews and group problem solving activities

## **Computer Science Teaching Assistant, UBC (part time)**

Sept 2019 - Current

- Assisted students in course materials during labs and tutorials
- Designed pre-class assignments, guizzes and exams for the courses
- Answered 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 softwareengineering course which emphasizes on Objected-oriented programming in Java, and CPSC 121 is a preparation course to algorithm and data structures

#### **TECHNICAL PROJECTS**

### **ACADEMIC**

# **Application Manager** (3-Person, Academic)

Jan 2020 - Apr 2020

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

## <u>Fundamental Racket Compiler</u> (3-Person, Academic)

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 recursive function calls with local variables of varying lifecycles

# **UBC Campus Explorer** (2-Person, Academic)

Sept 2019 - Dec 2020

- A full-stack project which enables effective querying of public UBC course/room metadata, with a back-end programmed in TypeScript
- Implemented server-side asynchronous behaviors with Node.js, and client-side with RESTful API
- Developed a back-end with PHP, with data persistence using JSON and simple tag search using SQL and MySQL

#### **PERSONAL**

## Online Team Communication Tool (1-person, Personal)

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

## Android 2D Platformer Game (1-person, Personal)

Apr 2018

- A single-player 2D platformer on Android, implemented in Android Studio using Java and Android Developer API
- Created custom art and music in Photoshop and Musescore

## **COMPETITIONS**

#### **IEEEXtreme 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)