

# Jack He

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## EDUCATION

### UNIVERSITY OF BRITISH COLUMBIA

#### BSC MAJOR IN COMPUTER SCIENCE

Expected Grad: May 2023

Cumulative GPA: 4.0 / 4.0

Major GPA: 4.0 / 4.0

Dean's Honour List 2019, 2020

## COURSEWORK

CPSC 221 Data Structures + Algorithms

CPSC 213 Computer Systems

CPSC 210 Software Construction

CPSC 110 Systematic Program Design

CPSC 121 Models of Computation

DSCI 100 Data Science

## SKILLS

### Languages

JavaScript • Typescript • Python • C++  
C • Java • PHP • HTML • CSS

### Frontend/Backend

React • Redux • Angular • Node.js  
Express • SASS • JQuery • JavaFX • Flask  
• MongoDB • MySQL

### DevOps

Unix • Linux • Bash • Git • CI/CD  
Github Actions

## YOUTUBE

[channel]

- 48,264+ views
- 760+ subscribers
- videos about:
  - How to code a sudoku solver
  - How to build a full stack web app
  - General algorithms

## AWARDS

### FINALIST

- HackTech 2020
- Best entertainment hack

### BEST MOBILE HACK

- Game of Apps 2019
- Most technically complex

### MOST POPULAR HACK

- NWHacks 2021
- Honorable mention

### SCHOLARSHIP

- Artona High School Scholarship

## INDUSTRY EXPERIENCE

### MICROSOFT | EXPLORE INTERN

May 2020 - August 2020 | Redmond, Washington, USA

- Implemented a new proof of concept for a product under development
- Developed the user interface for an Enterprise tool using **Angular** and **Node.js**
- Designed product specifications for an end to end user experience

### GAME OF APPS | SOFTWARE ENGINEER INTERN

July 2019 - September 2019 | Richmond, BC

- Used **Xcode** and **Swift** to develop the Game of Apps flagship iOS app.
- Designed core data flow and model schema for the interactions between the mobile app and the **Firebase** backend.
- Fixed a bug that spontaneously logged out 200+ users

## TEACHING EXPERIENCE

### UNDERGRADUATE TEACHING ASSISTANT [CPSC 121]

September 2020 - Present

- Lead weekly labs for 50+ students, graded exams and assignments, held office hours.
- Communicating the design, analysis, and justification of fundamental proof techniques.
- Designed Solutions to Assignment Problems.

## TECHNICAL PROJECTS

### LEETCODE EXTENSION: CODEBLOCK [Chrome Web Store]

- Built an end-to-end coding platform using **Stripe API**, **Google OAuth 2.0**, **Typescript**, **React**, **Node.js** bundled into a chrome extension.
- Features a coding editor, custom remote code-runner, test case checks, and video solutions.

### ASL SIGN LANGUAGE CLASSIFIER [Github] [Website]

- Built an ASL sign language classifier using **Python**, hosted on **Flask** trained with 3000+ images from Kaggle

### RECURSION VISUALIZER [Github]

- Built a recursive call visualizer with **Python**, **Flask**, and **React**
- Visualize any algorithm with code submitted by the user.

## OTHER WORK AND FUN

### INCLINE EDUCATION [Website]

- 3,047 total users as of February 2021
- Non-profit organization I co-started to help thousands of high-school students with their transition to university.
- Designed, and developed main website using **React**, **PHP**, and **SQL**

### WEBWORK BUDDY [Website]

- 3,140 total users as of March 2021
- Simple webapp and chrome extension to transcribe and simplify latex math for use with WebWork. All built using vanilla JS.