



# CALLUM BARKER

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Delta, BC | (778) 985-2432 | [callumb@sfu.ca](mailto:callumb@sfu.ca) | [GitHub](#): | [LinkedIn](#):

## SKILLS

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### TECHNICAL

- Programming Languages: **C/C++**, **Python**
  - Familiar With: **React/JSX**, **CSS**, **HTML**
- Operating Systems: **Windows**, **Linux**, **OS X**
- Tools: **Microsoft Visual Studio**, **Github/Gitlab**, **Sublime**, **PyCharm**, Adobe Photoshop, Microsoft Word, Powerpoint

### TRANSFERABLE

- Strong communication and leadership skills
- Focussed work ethic and highly punctual
- Effective problem solving
- Self managing
- Organized and detail oriented

## ACADEMIC PROJECTS

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### FLIXLIST WEB APP

Introduction to Software Engineering (CMPT 276)

03.2021

- Developed a web app using React/JSX, CSS, and MongoDB in a team of 5 students to allow users to search, rate, and review movies and share these reviews with friends
- Retrieved movie information using RapidAPI Movie Database API
- Worked in an Agile environment with teammates using weekly sprints and continuously integrated work to Gitlab

### HEAPSORT

Data Structures and Programming (CMPT 225)

11. 2020

- Implemented an array-based heap and heapsort using C++, resulting in a perfect grade
- Applied the concept of object-oriented programming to produce organized and reusable code

## PERSONAL PROJECTS

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### PORTFOLIO

<http://cbarkr.com>

03.2021

- Created a responsive website using React/JSX and CSS to display my work
- Deployed website using AWS Amplify

### PATHFINDING VISUALIZER

<https://github.com/cbarkr/pathfindingvisualizer>

01. 2021

- Produced a functional visualizer of A\*, Dijkstra, and BFS pathfinding algorithms in python in which the shortest path between nodes is displayed to the user
- Modeled the behaviour of the algorithms in an interactive Pygame window, allowing users to select start, end, and barrier nodes
- Utilized Pygame menu to create a simple UI in which the user selects options such as algorithm and amount of random barrier generation, as well as displaying instructions and results if prompted



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## WORK HISTORY

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### **BOYS AND GIRLS CLUB – LADNER, BC**

02. 2019 – 09. 2020

#### **Activity Leader**

- Supervised large groups of children in activities within and outside of our facility
- Incorporated elements from STEM fields into activities to promote learning in an interesting way

### **LONDON DRUGS – LADNER, BC**

06. 2017 – 07. 2018

#### **Photo/Electronics Specialist - Sales**

- Communicated effectively with customers to provide knowledgeable insight and professional customer service
- Diagnosed and resolved issues with customers computers, mobile phones and other technology
- Proficiency using the London Drugs product database

## EDUCATION

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### **SIMON FRASER UNIVERSITY**

09.2019 – Present

#### **BSc Computer Science**

- Expected graduation in 2024

## INTERESTS

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### **COMPUTER HARDWARE**

- Built and maintained multiple PC's over the past several years
- Over clocked CPU and partitioned drive to support dual booted operating systems on my personal computer

### **PHOTOGRAPHY**

- Amateur digital and film photographer

### **GRAPHIC DESIGN**

- Enjoy creating designs for personal use

### **SOCCER**

- Played as a goaltender on recreational teams since 2007

### **CAMPING/HIKING**

- Enjoy exploring local and distant mountains in all conditions