# Armaan Kara

Full-Stack Web Developer

armaan11@student.ubc.ca

778-859-2828



github.com/armaankara

# **Experience**

## Software Engineer @ UBC AgroBot (Navigation Systems Team)

April 2021 - Present // Vancouver, BC

- Developing self-driving software for a rechargeable 4-wheeled robot to be able to automatically maneuver crops rows, exterminate weeds and deliver precise fertilization
- Work with the applied principles from computer vision (image denoising, image filtering, Hough Line transform) in Python and OpenCV to make the robot navigate through crop rows
- ▶ Regularly communicate and collaborate with other sub-teams of engineers and designers
- ▶ Currently working on an algorithm to center the robot within the row using on-board cameras

#### Freelance Web Developer

May 2021 - Present // Vancouver, BC

- ▶ Contracted Web Developer to design and build custom websites per client specifications
- Provided consistent updates to the client about the status of the website and delivered the website on time, every time.
- ▶ Multi-page web apps were developed with HTML, CSS, React
- Hosting was done through Netlify and Google site verification was done to help improve search engine optimization

# **Directed Studies Researcher** @ UBC Institute for Resources, Environment, and Sustainability

September 2020 - December 2020 // Vancouver, BC

- ▶ This project aimed to promote individual climate actions by creating a smart personalized carbon calculator to empower people in BC to take actions to reduce their carbon footprint
- Gathered and analyzed data from over 50 individuals and helped educate 70% of them on their carbon intensive activities
- Created a survey through an expansive literature search, developed and excel spreadsheet for calculations, analyzed Canadian governmental policy data, wrote a paper, and presented my findings
- Worked directly alongside two professors from the Institute for Resources, Environment, and Sustainability

# **Projects**

#### **Portfolio Website**

- Designed, built and deployed my current portfolio website using React, HTML, CSS and Netlify
- Code has been optimized in various browsers and devices to ensure consistent cross-browser compatibility and mobile responsiveness
- ▶ Has a Google web developers score of 98/100 for page speed

# Rate My Residence (RMR)

- Currently developing code for UBC's residence so that students can make better informed decisions about their housing accommodations on campus
- ▶ The web app is being built with React, HTML, CSS, Node.js, Express, and MongoDB
- Tested sites in various browsers and devices to ensure cross-browser compatibility and mobile responsiveness

# Skills

## **Programming Languages**

JavaScript (ES6), HTML, CSS, Python, R

#### Libraries & Frameworks

React, Node.js, Express, Mongoose

#### **Tools & Platforms**

Git, Github, Netlify, Heroku, MongoDB, VSCode, Jupyter Notebooks

# Education

#### **University of British Columbia (UBC)**

2016 - 2021 // Vancouver, BC

Bachelor of Science in Chemistry, Earth and Environmental Science, & Life Sciences

## **Extracurriculars**

# Writer for Ubyssey student newspaper

Researched, interviewed, wrote, edited and, published an article to the UBC student newspaper that received lots of positive feedback. "Hundreds of thousands of your fee dollars are sitting in AMS fund reserves"

# **UBC BOLT – 24-hours Data Analytics Case Competition**

Won 4<sup>th</sup> place overall in UBC's biggest Datathon through leveraging both business consulting analyses and datacentric analysis techniques

## Executive Member of Science Undergraduate Society (SUS) Budget and Grants Team

Helped to manage spending of the \$250,000 SUS budget, by allotting money to clubs, students, events and grants

#### **Interests**

Skiing, weight-lifting, traveling, reading, photography