AAYUSH BEHL

Computer Engineering Student

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TECHNICAL SKILLS

Programming
- Java
- C++
- Python
- JavaScript/HTML/CSS
- SQL
- C

Software
- Android Studio
- IntelliJ
- Git
- PostgreSQL
- Linux
- ROS

Concepts
- Object-Oriented Programming
- Algorithms and Data structures
- Machine Learning
- Web Development

EDUCATION

University of British Columbia **September, 2019 – April, 2023**
Bachelor of Applied Science - Computer Engineering

Relevant Coursework
- **Principles of Software Construction (CPEN 221):** Design and implementation of software systems using Java, object-oriented design, testing, abstract data types, specifications, and concurrent software design
- **Basic Algorithms and Data Structures (CPSC 221):** Design and analysis of basic algorithms and data structures like trees, linked lists, and graphs using C++
- **Computer Engineering Design Studio I (CPEN 291):** Applications of Machine Learning to various problems using Python and PyTorch

TECHNICAL PROJECTS

ML Game Recommender, University of British Columbia **March, 2021 – April, 2021**
- Led a team of four students in making an Android application that takes game cover art images as input, recognizes them as one of 350 PS4 games, and recommends similar games the user might enjoy
- Compiled game cover art image dataset using Selenium.
- Created the image recognition system using a combination of YOLO object detection and Google's Mobilenet model, using only one image per game title initially and later augmenting the data
- Organized all the Python scripts used to work with the Image Recognition system and the Game Recommender model into one module
- Set up a Node.js backend that receives game images, processes them using the Python module, and responds to the frontend in JSON format.

Java Command-line Group Chat (Personal Project) **December, 2020**
- Programmed in Java both server and client of a group chat allowing users to connect to a running server and chat to others connected to the same server (repository on GitHub)
- Demonstrated understanding of concurrent programming by successfully writing code to manage overlapping requests on the server using a MessageQueue abstract data type

DigiDiary Web App (Personal Project) **June, 2020 – July, 2020**

- Developed a web application personal project using JavaScript, HTML, and CSS allowing users to write new diary entries for each day, as well as create a to-do list or upcoming events list with notification reminders (repository on GitHub)
- Utilized a client-side storage database called IndexedDB to store all user data in JSON format, which automatically loads each time the user starts the application

ENGINEERING STUDENT TEAMS

UBC Open Robotics, University of British Columbia **August, 2020 – Present**
Robocup@Home Software (Research) member

- Utilized the face-recognition and OpenCV python modules to build a system that detects faces in the webcam video stream, assigns names to them, and recognizes them for the rest of the runtime
- For example, a person named 'Person 1' will be recognized as 'Person 1' each time he/she enters the frame.

UBC Open Robotics, University of British Columbia **January, 2020 – August, 2020**
Finance Admin

- Improved sponsorship package to better appeal to potential sponsors in a team of four
- Contributed to raising funds for projects
- Acquired skills in effective professional communication

VOLUNTEER EXPERIENCE

Rajkiya Purva Vidyalaya, Dehradun **March, 2017 – April, 2017**
Teacher Assistant

- Volunteered in a school for underprivileged children
- Gained valuable experience teaching simple concepts to beginners

AWARDS

UBC Dean's Honor List 2021
UBC Dean's Honor List 2020
Trek Excellence Scholarship (International Students) 2020

INTERESTS & ACTIVITIES

- **Tennis**
- **Competitive Programming**
- **Video games**
- **Coding projects**