Aarjav Jain (he/him) **Computer Engineering Student**

323-5955 Birney Ave   Aarjavjain2736@gmail.com | (587)-664-2736
Vancouver, BC, V6S 0C5   https://aarjavjain.site/

TECHNICAL SKILLS

Programming Languages: Javascript, HTML, CSS, Python, C, C++, Java
Frameworks and Applications: React.js, RTOS, MATLAB
Software Tools: Git, Visual Studio Code, IntelliJ, Arduino IDE, STM32Cube IDE

EDUCATION

University of British Columbia   **Expected Graduation: May 2027**
Bachelor of Applied Science - Computer Engineering   **CGPA: 4.33**
Related Courses:
- Introduction to computer engineering design: 97%
- Linear Systems: 94%

ENGINEERING STUDENT TEAMS

Solar, UBC   **September 2023 – Present**
Embedded Systems Engineer
- Designed a C/C++ library with functions to open, append, and close files on a FATFS file system on an SD card, and tested with STM32Cube IDE and a Nucelo board.
- Developed a Python script to analyze bus jitter, validate CAN messages, and rapidly test our boards.
- Gaining skills in CAN bus communication protocols and PCAN software.

AgroBot, UBC   **January 2023 – May 2023**
Applied AI Developer
- Collaborated in an agile software development environment to evaluate our CNN model's progress.
- Created a 94% accurate Python OpenCV algorithm for optimized crop contouring (excluding weeds).
- Trained a YOLOv8 model using Roboflow to determine bounding boxes on crops and weeds in plant images with 90% accuracy. Utilized LabelImg to add bounding boxes to crop images.

TECHNICAL PROJECTS

Music Beat Detector, Personal Project   **May 2023 – August 2023**
- Developed a real-time audio analysis algorithm and GUI in Python using pyaudio, OpenCV, and spotipy to detect beat elements (bass, claps, hihats), synchronize lyrics, and change screen colors accordingly.
- Created a C/C++ WinAPI GUI implementation with portaudio.h and fftw3.h for higher performing multithreaded audio processing and displaying flashing lights.
- Utilized React and Web Audio API to create a web implementation and to download the C/C++ GUI.

Personal Website, Personal Project   **May 2023 – August 2023**
- Developed a responsive and user-centric personal profile using React.Js.
- Utilized Flexbox for a seamless, mobile, and laptop-optimized personal website.

WORK EXPERIENCE

Kumon North America, Calgary   **September 2021 – December 2022**
Marker and Instructor
- Communicated effectively with other instructors to streamline workflow and enhance teamwork.
- Balanced dual roles with strong organizational skills and work ethic to provide feedback to students.
- Contributed to student's success in school through teaching and leadership initiatives.