Aaryan Dhand

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EDUCATION

Bachelor of Science in Software Engineering | *Schulich School of Engineering, University of Calgary* **09/2022 - 04/2027**
Current GPA: *3.43/4.0*
Awards*: Jason Lang Scholarship, Suncor Energy Dependant Scholarship (x4)*
Relevant Courses*: Data Structures and Algorithms, Full Stack Development, Computer Organization, Object Oriented Programming in Java, Programming Fundamentals in C and C++, Data Management Practices*

EXPERIENCE

BSA IT Summer Student | BIC, LeanIX, Teamwork, Problem Solving, Enterprise Architecture **05/2024 - 08/2024**
Bird Construction, Calgary, AB

- Worked with Digital Services in the Business Systems Architecture team on delivery of business processes, requirements analysis, design solutions, software development life cycle through **LeanIX** and **BIC**
- Collaborated across teams to ensure that business objectives were met in an efficient, secure, and scalable manner

Software Developer | Flutter, Dart, Figma, Raspberry Pi, Git, Full-Stack, Problem Solving **08/2023 - 01/2024**
AC Robotics, Calgary, AB

- Seamlessly integrated a proprietary bionic arm with an in house app developed in **full-stack** with **Figma**, **Flutter,** and **Dart** in tandem with **Git**
- Designed and tested app integration with photodiode sensors in order to track blood oxygen levels and heart rate
- Tracked electrical signals sent during intentional muscle flexion through EMG electrodes through **Raspberry Pi** I/O

PROJECTS

Java Disaster Relief System | *Java | SQL*

- Built a **Java** application to manage the data of disaster victims through the use of a custom **SQL** database
- Used **SQL** queries to dynamically update the database and display changes in the terminal

DriveAwake | *React | C | Python | Flask | Arduino*

- Developed a **React** web application to track EOG signals of drivers to prevent road incidents
- Utilized **C** and **Python** machine learning models to save and predict user data that is managed in **Flask**

Sorting Algorithm Visualizer | *Python | Pygame | Practical Data Structures and Algorithms | Object Oriented Programming*

- Utilized the **Pygame** library within **Python** to create a visualizer for various sorting **algorithms**
- Written in the style of **Object Oriented Programming**, utilizing classes to instantiate and manage the application

Arduino-controlled Retro Game Console | *Arduino | C++ | Fusion360 | PrusaSlicer*

- Utilized **Arduino** UNO processor as framework to build a retro video game console in a collaborative group setting
- Used **C++** and **Arduino** IDE to plan, test, and build a recreation of the classic game 'PONG' that functions on the console
- Console parts designed in **Fusion360**, sliced and printed using **PrusaSlicer**

Arduino-controlled Automated Garden | *Arduino | C++ | Fusion360 | PrusaSlicer*

- Planned, designed, tested, and build an **Arduino** based automated garden with day-night cycle and automated watering in an ethical and cost effective manner
- Utilized moisture sensors in tandem with watering pumps to integrate a watering cycle that intelligently detects when the plant needs watering
- Increased efficiency by 10% on specific timed code with **C++** that sent signals to the lightstrip on when to turn on or off, effectively creating a day and night cycle
- Designed parts in **Fusion360**, sliced and printed using **PrusaSlicer**

SKILLS

Languages: *C | C++ | Python | SwiftUI | SQL | Java | HTML | CSS | Dart*
Experience with: *React | Flutter | Figma | Firebase | Git | Fusion 360 | PrusaSlicer | Arduino | Raspberry Pi | Pandas | SKlearn*
Frontend | Backend | Full-Stack | Databases | Practical Data Structures and Algorithms | Object Oriented Programming |
Leadership | Teamwork | Problem solving | Adaptability