

# ANJALI KOSURI



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## HIGHLIGHTS OF QUALIFICATIONS

- Highly proficient in Python, C, C++, and Java used both in personal as well as school projects
- Knowledgeable with Selenium, MATLAB, Simulink
- Demonstrated strong analytical and research skills, along with proficiency in SimBiology and Autodesk Inventor, through the successful execution of multiple biomedical-focused projects.
- Excel in effective communication, both one-on-one interactions and group discussions
- Place a high value on meeting deadlines, accomplished through effective time management
- Display a high degree of integrity, dedication, and reliability by consistently meeting both personal and group deadlines. Meeting group deadlines ensures I am well-prepared to support and guide a team as needed.

## EDUCATION

**McMaster University, Hamilton ON, Canada**

**September 2021 - Current**

**Bachelor's Degree in Mechatronics and Biomedical Engineering - In year 3 of the 5-year iBioMed program**

- Received McMaster University Award of Excellence entrance scholarship for having a 98% entrance average
- Deans' Honour List 2021-2022 & 2022-2023
- GPA: 11.9 and 11.6 on a 12-pt scale in the last two years respectively

### **Relevant Coursework**

- Data Structures & Algorithms, Software Development
- Health Solutions Design Projects I & II, Biomedical Signals & Systems, Analog & Digital Circuits
- Calculus I-IV, Linear Algebra

## WORK EXPERIENCE

**University Health Network, Toronto General Hospital**

**May 2022 - Aug 2022**

**At-The-Elbow, Technical Support Co-op**

- At-the-elbow support for hospital staff during the rollout of the medical records software "Epic" from Epic Systems
- Required to aid staff with using the software and file tickets via ServiceNow if software issues were detected
- A fast-paced environment where our work was needed to ensure staff could provide patient care without delays

## PROJECTS

**Pacemaker**

**September 2023 - Current**

- School project in a team of 6 using Simulink and Python to develop pacemaker modes (AOO, VOO, AAI, VVI) & and create a user interface.
- By consolidating the provided documentation, I mapped out the implementation for the modes and added hardware hiding.
- When tested on the heart simulator application "Heartview", the implemented modes functioned according to the project requirements.

**McMaster Grades Visual Dashboard App**

**August 2023**

- A Python GUI and Selenium desktop application I developed as a personal project.
- Python was used to develop a user interface with a login screen, a splash screen, then allows users to select a term to view grades which are displayed in a user-friendly and visually appealing format.
- Selenium was used to scrape the data for the grades which would then be displayed on the user interface.

**Genetic Programming for Cart-Centering Problem**

**April 2023**

- School project where I used stacks and binary trees to generate mathematical expressions to control a cart's movement.
- The code was designed to run over several generations as an implementation of reinforcement learning to find the best mathematical expression for centering the cart most efficiently.

**2-in-1 Walker/Wheelchair**

**March 2022 - April 2022**

- School project where I collaborated with a team of four to build a functioning 2-in-1 walker/wheelchair high-fidelity prototype for a real stroke survivor's needs. Documentation of requirements was key to the process of developing the prototype.
- We built it mainly with wood, hinges, and bicycle wheels. Considering the specific requirements based on the needs the patient described, we added further features like a cushion with a place to store the cushion when the wheelchair was converted to a walker.
- The project was selected to be presented at the **2022 iBioMed Showcase**.

**GenuCheck**

**January 2022 - March 2022**

- Using Raspberry Pi and Python, I created a knee brace featuring a built-in orientation sensor that measures the angle of knee flexion. If the knee angle exceeds 90°, the brace vibrates.
- A bar graph that showcases the frequency of knee angle exceedances per day over the past 7 days is generated. The graph updates automatically whenever the knee angle surpasses the limit or a new day commences.