

# Arji Ahamed Thaiyib

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## EDUCATION

<b>Bachelor of Engineering, Computer Engineering (Co-op)</b> McMaster University	<b>Sept 2020 – May 2024</b>
<ul style="list-style-type: none"><li><b>GPA: 3.8/4.0</b></li><li>McMaster Honour Award (2020) &amp; Dean’s Honour Role (2020-2022)</li></ul>	

## PROJECTS

<b>Stylised Personal Site</b>   <i>HTML, CSS</i> <a href="#">Live Website</a>   <a href="#">Code</a>	<b>December 2022</b>
<ul style="list-style-type: none"><li>Designed a <b>responsive</b>, professional personal site with an elegant <b>user interface</b>, including a contact me feature using <b>HTML</b> and <b>CSS</b>. The website utilizes <b>CSS Grid</b> to ensure functionality and ease of access across different platforms and screen sizes.</li><li>Utilized CSS grid in addition to its various properties, including grid template, columns, and rows to incorporate a modern horizontal media scroller with scroll snapping functionality. Achieved a <b>97%</b> performance rating using <b>Google Lighthouse</b>.</li></ul>	
<b>Spacial Mapping System</b>   <i>Python, C, Keil, MSP 430 Microcontroller</i> <a href="#">Project Demo</a>	<b>March - April 2022</b>
<ul style="list-style-type: none"><li>Created a spacial mapping system using a time-of-flight sensor and stepper motor to acquire information about the device’s surrounding environment and allow for communication between the ToF sensor and MCU via <b>I2C serial communication protocol</b>.</li><li>Data collection algorithm was programmed using <b>Keil</b> software in <b>C</b> to perform sampling of distance coordinates, resulting in a <b>90%</b> image reconstruction accuracy rate of the environment.</li><li>Measurement data is collected using <b>UART</b> communication and then processed using a method in <b>Python</b>, which makes use of the <b>Open 3D</b> library to visualize the measurements as coordinates in a 3D interactive environment.</li></ul>	
<b>Pacemaker</b>   <i>Python, PyQt5, MATLAB Simulink</i> <a href="#">Code</a>	<b>November - December 2022</b>
<ul style="list-style-type: none"><li>As a team of 5, developed a safety-critical, real-time, adaptive pacemaker system which can take user inputs and pace the heart accordingly in varying conditions.</li><li>Programmed a GUI using <b>PyQt5</b>, which allows for user inputs and viewing the devices’ current status through <b>UART</b> communication using <b>Python</b>.</li><li>Implemented eight rate-adaptive pacing modes for varying levels of activity by developing the necessary requirements table and Stateflow diagrams using <b>MATLAB Simulink</b>.</li></ul>	
<b>System for Sorting &amp; Recycling Containers</b>   <i>Python, Raspberry Pi, Quanser Labs</i> <a href="#">Project Demo</a>	<b>January - March 2021</b>
<ul style="list-style-type: none"><li>Programmed a system that can efficiently sort recyclables and transfer them to their corresponding bins.</li><li>Created an algorithm using <b>Python</b> to classify containers using data from a virtual environment (<b>Quanser Interactive Labs</b>) and transfer them to bins depending on their level of contamination in under 30 seconds.</li><li>Led a team of four by organizing team meetings, creating <b>Gantt charts</b>, and delivering weekly progress reports as the <b>project manager</b>.</li></ul>	

## EXPERIENCE & LEADERSHIP

<b>Google Developer Student Club</b> <i>Workshop and Team Member</i>	<b>Sept 2022 - Present</b> <i>Hamilton, ON</i>
<ul style="list-style-type: none"><li>Led team recruitment and event coordination alongside other Google Developer Student Clubs in North America.</li><li>Assisted in running Coding and Web Development seminars for <b>Java</b>, <b>HTML</b> and <b>CSS</b> to <b>20+</b> beginner students interested in learning Programming and Front-End Web Development.</li><li>Co-hosted workshops involved in teaching the basics of <b>Git</b> and <b>Github</b> to <b>100+</b> students.</li></ul>	

## TECHNICAL SKILLS

<b>Programming Languages:</b> Java, Python, C, C++, MATLAB, HTML/CSS
<b>Technologies &amp; Tools:</b> Git, Github, Visual Studio, Markdown, LTSpice, Waveforms, Simulink, Autodesk Inventor, Raspberry Pi, Analog Discovery 2, Keil uVersion 5, Quartus II, MSP 430 Microcontroller, Quanser
<b>Other:</b> Agile Work Methodology, Scrum Framework