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Marco Tan

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EDUCATION

BEngBME, Mechatronics and Biomedical Engineering Sept 2022 - May 2027 (Expected)
McMaster University *Hamilton, ON*

Extracurricular Activities: Secretary for McMaster Acapella (2023), Baritone in Macafellas
Main courses: computational mechanics, mechatronics programming, engineering mathematics, electrical engineering, biomedical design

EXPERIENCE

Robotics Mentor June 2021 - Present (On-Call)
Brampton Robotics *Brampton, ON*

- Taught students programming in C/C++, modelling using Autodesk Inventor, and introductory control theory.
- Prepared VEX VRC teams by refactoring control code and testing hardware systems on competition robots.
- Developed automated and operator-controlled software routines using object-oriented and test-driven development.
- Coordinated timely and efficient completion of code with other developers through agile practices.

PROJECTS

Portfolio website July 2022
Hobby project

- UX/UI design to create a sleek portfolio website.
- Utilized NextJS framework to create single-page application.
- Utilized ChakraUI and framer-motion to create a stylish, responsive UI.

Development of an accessibility device for paralyzed wheelchair patients Feb 2023
As part of the IBEHS 1P10 course

- Identified a market for paralyzed wheelchair patients in need of increasing mobility and independence.
- Developed control software for a head gesture-controlled power wheelchair activator for the Raspberry Pi platform using object-oriented programming principles.
- Collaborated within a group of four to meet deliverable deadlines and ensure steady project completion.

SKILLS

Programming Python, C, C++, JavaScript, TypeScript, NextJS, ChakraUI, Git,
GitHub, Matlab, Markdown

Hardware Platforms Arduino, Raspberry Pi, VEX Robotics

Communication English (native), French (intermediate)

Other Microsoft Office, Autodesk Inventor, Adobe Photoshop,
DaVinci Resolve, Linux