

Kavya Sundaresan

MECHATRONICS & BIOMEDICAL ENGINEERING STUDENT

☎ 647-642-9346 | ✉ sundarek@mcmaster.ca | 🌐 www.linkedin.com/in/kavya-sundaresan | 📄 https://github.com/kavash11

Highlight of Qualifications

- Enrolled in level four of the five year Integrated Biomedical Engineering and Health Sciences program
- Experienced leader with effective problem solving and communication skills developed while working as a product manager

Skills

Programming: HTML, CSS, Python, C++, Matlab, C, Arduino

Tools: AutoDesk Inventor, AutoCAD, NI Multisim, Microsoft Office, Simulink, Azure Devops

Education

Bachelor of Mechatronics and Biomedical Engineering

2020 - 2025

McMaster University, Hamilton, ON

- Cumulative **GPA of 3.9** on a 4.0 scale
- **2022 McMaster Engineering Competition winner** in Senior Design category
- Represented McMaster and placed **4th** at the **2023 Ontario Engineering Competition** out of 16 universities
- Awarded with the McMaster President's Award for achieving an entrance average above **95%**

Experience

Product Management Intern | Nuclear Promise X, Kincardine

May - Sep 2023

- Managed **4** rapid app development projects simultaneously each with over **200** end users
- Developed technological solutions to increase efficiency in nuclear power plants
- Created workshops and training materials to onboard new product managers

Undergraduate Research Assistant | MNSL, McMaster University

May - Sep 2022

- **1 out of 7** NSERC USRA awardees for the electrical and computer engineering department
- Developed electrochemical sensors for glutamate detection in biofluids and the environment
- Wrote a review paper comparing the potential of **300+** electrochemical sensors for antibiotics detection

Learning Resources Assistant | McMaster University

May - Sep 2021

- Created and taught an introduction to **Python** course for **1000+** incoming first year students under the Engineering faculty
- Taught an **AutoDesk Inventor** workshop and a high school physics review course to over **300+** students
- Planned and executed a designathon for **300+** incoming students in a team of **8**

Projects

GaitSense

Jan. - May 2023

- Designed a wearable device that monitors patient gait with a team of engineers and physicians
- Built a Bluetooth Arduino prototype and a Python GUI that graphs live data for physicians to analyze
- Incorporated orientation sensors and force sensors to track joint flexion and foot pressure

Pacemaker

Sep. - Jan. 2022

- Created the back-end/front-end software using Simulink and Python for a pacemaker
- Debugged and tested the software using an FRDM-K645 board and accelerometers

Digital Circuit Design Project

Dec. 2021

- Designed and built a digital circuit that repeatedly flashes my student number on a seven segment display
- Built the sequential logic using logic gate chips and performed debugging with an oscilloscope

University of Ontario Tech Designathon

Jan. 2021

- Modeled the **winning** assistive technology wristband using SolidWorks for anxiety patients in **36 hours**
- Conducted a materials selection analysis for the production process of the wrist band

Extracurricular Activities

Senior Sponsorship Lead | McMaster Design League

May 2022 - Present

- Networked with **100+** companies for designathon sponsorship/mentorship/judging roles
- Planned and ran designathons with **300+** participants along with **6** cross functional teams
- Trained and managed a team of **5** in sponsorship acquisition and raised **\$3000**

Engineering Ambassador

Sep 2022 - Present

- Organized and ran events for **1000+** prospective students under the engineering faculty
- Provided campus tours sharing about student life, coop and research at McMaster to over **50** prospective students