

Jade Cao

caok13@mcmaster.ca
mobile: 647-643-6347
linkedin.com/in/jadecao
kjadec.github.io/Website

Experience

Research Assistant

Summer 2020 and 2021

Hamilton Health Sciences and McMaster University • Hamilton, ON

- Supervised by Dr. Anthony Chan, Professor of Paediatrics and Director of the Paediatric Thrombosis Clinic and Hemophilia Clinic at McMaster Children's Hospital. Received \$6000 funding from Biotalent Student Work Placement Program.
- Performed program validation for fibrin clot analysis utilizing scanning electron microscope images. Developed end-user documentation to be used in undergraduate course development at McMaster University, and instructional material at Hamilton Health Sciences.
- Researched and analyzed scientific information on neonatal circulation and portal vein thrombosis. Designed models with 3D computer graphics software, Blender. Presented information on a webpage, utilized JavaScript, HTML, and CSS, hosted on GitHub.

Technical Design

2019 - 2022

McMaster University • Hamilton, ON

- Designed and developed a wearable device using a Raspberry Pi coded in python, and 3D modelled a housing unit for the device with Autodesk Inventor. Showcased design during a design expo.
- Conceptualized an ultrasonic range finder, demonstrated functionality with SPICE simulation and circuit design software, Multisim. Implemented top-down design and system integration of analog and digital electronic components. Performed extensive debugging strategies with oscilloscopes, waveform generators, multimeters, and similar lab equipment.
- Designed digital circuit with 7SD, integrated circuit logic, JK flip flops, to display 9-digit student number

Education

B.Eng., Engineering Physics & Biomedical Engineering (Co-op)

2019 - 2024

McMaster University • Hamilton, ON

- President's Entrance Scholarship: Awarded to students with an entering average greater than 95%.
- Dean's Honour List (2019-2021); Cumulative Average: 3.93

Volunteer & Extracurriculars

Leadership & Development Coordinator

2021 – 2022

McMaster Engineering Society • Hamilton, ON

- Appointed to oversee the development of leadership and professional skills for students within the Faculty of Engineering at McMaster. Managed committee and delegated responsibilities to execute events such as LinkedIn photoshoots, and engineering competitions.

Equity, Diversity & Inclusivity (EDI) Co- Chair

2021 – 2022

McMaster Women in Engineering Society • Hamilton, ON

- Co-Directed and hosted an online conference, assembled keynote speaker, student graduate panel, and workshop hosted by the chair of the Ontario Network of Women in Engineering. Devised and executed events to educate undergraduate students on EDI.

Skills

Software: Python, MATLAB, CAS Maple, NI Multisim, FlexPDE, Autodesk Inventor, Microsoft Office

Practical: Oscilloscope, Function Generator, Circuit Analysis, Multimeter