

# YOUSIF FADHEL

ELECTRICAL AND BIOMEDICAL ENGINEER

Mississauga, Ontario L5B 4A1

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## TECHNICAL SKILLS

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**LANGUAGES:** JavaScript, Python, C, C++, HTML/CSS, MATLAB, Latex, Verilog

**Algorithms and Data Structures:** Stacks, Queues, Bubble & Sort, Inheritance, Singly & Doubly Linked Lists

**Technical Skills:** Circuit design, Oscilloscope understanding, PCB layout, 3D printing, FPGA Design, Mechanisms understanding

**TOOLS:** Git, Adobe Photoshop, Autodesk Inventor (AutoCAD), Microsoft Excel, Microsoft Word, Microsoft PowerPoint, AD2, PSpice, Quartus

## EXPERIENCE

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**Technical Advisor** *McMaster Medical Engineering Design Team*

Hamilton, Canada, October 2024 - Present

- Facilitated technical guidance, support, and training to students, ensuring successful implementation of engineering projects.

**Team Lead** *Sky Zone*

Mississauga, Canada, Feb 2021 - Aug 2024

- In charge of coordinating park rotations, assuring park attractions are safely monitored, assigning closing tasks to coworkers, and scheduling breaks.
- Developed excellent leadership, communication and customer service skills ensuring satisfaction of all customer visits.

## PROJECTS

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**Personal Website (CSS/HTML/JavaScript) - [Website](#)**

- Built a website using HTML and CSS from scratch utilizing bootstrap elements and hosted on GitHub
- Created a dynamic Projects section that features academic and independently developed projects
- Incorporated problem-solving skills to ensure intuitive user interaction with the website

**Snake (C/C++)**

- Programmed a unique version of the popular snake game from scratch using high level OOD through C++
- Learned how to optimize code time complexity through asymptotic analysis and appropriate algorithm
- application Learned how to work cooperatively on code at a high level of efficiency

**Automated Inhaler (Python) – [Autodesk Viewer](#)**

- Built a prototype of a wrist attached inhaler using a cam and follower mechanism on **Autodesk Inventor** and a **Raspberry Pie** programmed in python as the brains of the machine
- Depicted leadership by managing a group of 4 peers and delegating the workload according to individuals' areas of expertise
- Created a complex moving .IAM file that incorporated several different individual parts that are accurately constrained

**Hip Implant Prosthetic (Python)**

- Created a prototype of a hip implant with a shape that was designed to specifically accommodate for aseptic loosening
- Uses a **python** program that would suggest dimension parameters based on calibration questions
- Further enhanced my skills with CAD, Autodesk Inventor and 3D-printing

## HONORS & AWARDS

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**Engineering Award of Excellence**

- Offered a \$3000 scholarship in recognition of academic success from my enrollment into McMaster University

## EDUCATION

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**McMaster University**

Sept. 2022 - April 2027

Bachelor of Electrical Engineering – Biomedical Engineering CO-OP

**Relevant Course Work:** AI-Innovative Technologies (A+), Statistical Methods BME (A-), Biochemistry (A+), Mechanics (A-)