

Dharav Shah

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EDUCATION

McMaster University

September 2023 – April 2027

- Honours Software Engineering Co-op, B.Eng (3.9 GPA)
- Achievements: Entrance scholarship for exceptional performance | Deans Honours list | The McMaster University Award of Excellence | **2nd Place at MacEngComp 24**
- Courses: Data Structures & Algorithms | OOP | Development Basics (git, bash, C) | Linear Algebra

TECHNICAL SKILLS

Languages: Python, Swift, java, SLRUM, C, C++, JavaScript, Html, Bash, Verilog, MATLAB, Ruby, Markdown, YAML, UML, PowerShell, TypeScript, CSS

Web Development: HTML, CSS, React.js, Node.js, .Net, Vite, TypeScript, CSS

Technologies, Tools and Hardware: AWS, Azure, TensorFlow, Jupyter Book, GitHub, Firebase, Linux, Unix, Maven, Vim, Arduino, Altera FPGA.

Libraries: TensorFlow, Matplotlib, NumPy, Pandas, PyTorch, OpenCV

Other Skills: CUDA, SLURM for GPU Job Scheduling, SSH and Remote GPU Cluster Access, GitHub Actions, AutoCAD, Metalworks, Quanser, Project Management, Data Analysis

EXPERIENCE

Battery Management Team SW Team Member

January 2025 – Present

Battery Workforce Challenge (BWC) ,McMaster

- Developed and presented an [IOS app](#) using **Swift Sprite Kit** at **Apple's App Showcase**, demonstrating technical aptitude and problem-solving capabilities
- Designed and animated **optimized sprites** for **greatly improved performance**
- Gained practical experience in **technical project management** and delivering **innovative solutions**

Software Engineer, GIS and, Maps Assistant

April 2024 - Present

McMaster University, Mills library

- Developed [Data Analysis Python Scripts](#) and educational tutorials on behalf of [McMaster Dash](#) using SciPy, Pandas, Matplotlib, and Jupyter Book
- Developed Python [scripts](#) to **migrate legacy map metadata** to modern formats

PROJECTS

Cybersecurity System *Technologies:* Python (OpenCV, Flask, Cryptography), SQL

- Designed and tested a robust [cybersecurity system](#) integrating **facial recognition**, a **password manager**, and **file encryption** capabilities
- Implemented **strong encryption protocols** to safeguard user credentials and sensitive data
- Achieved **2nd place** among **30+ teams** at **MacEngComp 24**, recognized for real world applicability
- Functional product was created within a **7-hour phase** starting from scratch

RecycloBot *Technologies:* Python (OpenAI, OpenCV,), C++ (Arduino), Swift (Firebase)

- Built [Ai Waste Management System](#) with dual servo motors for **automated separation**
- Achieved **90% sorting accuracy** in testing and demos
- Created a Firebase-integrated **Swift app** with **live updates**, **leaderboards**, and an **AI chatbot** on environmental topics

Personal Portfolio *Technologies:* React, TypeScript, Tailwind CSS, Vite

- Designed and developed a [personal portfolio](#) to showcase projects, skills, and experience using **React**
- Built **interactive UI** with smooth animations, **responsive design**, and theme adaptability
- Deployed using **GitHub Pages** with **custom domain** and continuous integration