

Talha Khalil

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Education

University of Calgary

2017-22(with Internship)

Bachelor of Science in Electrical Engineering | Minor in Computer Engineering

CGPA: 3.81/4.0

Relevant Skills

Programming Languages C++, C, Python, Java, MIPS and Blackfin Assembly

Software Quartus Prime & Modelsim (FPGA design), CrossCore Embedded (Eclipse), 3D Printing

Project Management Skills Agile Project Development, SCRUM

Work Experience

Learning Assistant for the University of Calgary

Jan – Aug. 2020

- Tutored first year and second year engineering students with course work using online platforms such as Zoom, and initially in-person.

Brain Wave Signals Software Researcher

May – Aug. 2019

- Developed an automation tool in Python that reduced data extraction from taking 2 weeks to 2 hours
- Pending paper on Parkinson's Disease deep brain stimulation targeting
- Developed a program in Python which significantly increased the efficiency of paper use

Personal Projects

<https://github.com/talhakhali0703>

Course Registration System - in Java

- Full Server-Client application, with a login and registration system
- Designed and created an application which was used to register students into classes

Arduino - Android Mesh Network (Embedded Systems Project) - in C++

- Designed and created a device which used LoRa, Arduino and Bluetooth to send messages
- Aided in the design of an accompanying android application

Audio Clock (Embedded Systems Project) - in C

- Designed and created an audible clock for visually impaired individuals
- Programmed the clock software in C for PIC microcontroller
- Designed the speaker and analog filter for the clock and 3D printed the casing

Remote Controlled Car (Embedded Systems Project) - in C

- Created a remote-controlled car for the Arduino microcontroller in C

MATLAB Data Select - in Python

- Selects through multiple MATLAB data figures quickly through a GUI interface coded in Python

Leadership Experience

Digitronics (University Engineering Club)

Sept. 2019 – April 2020

- Mentor teaching members how to work with hardware (Arduino) and code in C
- Executive in charge of communication, organizing club events and debugging and developing projects

Project 90 (University Engineering Club)

Sept. 2017 – Sept. 2019

- Team lead in charge of 15 other students
- Designed and built a compressor machine used for plastic recycling and did the electrical wiring for 3 other machines

Awards

Biomedical Engineering Research Grant

Apr. 2019 – Aug. 2019

Dean's List of Distinguished Students

Fall 2017 - Winter 2019

First Year Scholar

Fall 2017 - Winter 2018

Alexander Rutherford Scholarship

Fall 2017 - Winter 2018