





# Maaz Azam

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## Skills

<b>Languages</b>	Swift, SwiftUI, Objective-C, Python, C, C++, JavaScript, Linux, HTML, CSS, SQL/NoSQL
<b>Frameworks</b>	Coherence, UIKit, XCTest, Django, Pytest, jQuery, REST API, ReactJS, Spark, Google Vision API
<b>Technologies</b>	XCode, AWS, Splunk, Git, Google Cloud, Jenkins, Firebase, Docker, Kubernetes, OpenCV, Visual Studios


## Experience

-  **Apple** Sunnyvale, California  
AR/VR SOFTWARE ENGINEER Sep 2022 - Present
  - Worked on **Freeform** iOS/visionOS (AR/VR) application using **Swift/Objective-C** in coalition with HI, QA and design team
  - Using front-end principles with **SwiftUI** and **UIKit** to create a more seamless UI/UX with Apple's standards
  - Established **real-time collaboration** layer to allow for simultaneous interactions with other participants using **CRDT's**, **OT's** and Coherence framework in addition to integration with Apple's **CloudKit** service
  - Automated log data collection from users using **Python** to record telemetry results, and track power, performance and memory metrics across the app ecosystem using **Splunk** dashboard
  - Expanded quality and stability of application through unit-testing and building test infrastructure using **XCTest** framework
-  **Rivian** Palo Alto, California  
SOFTWARE ENGINEER May 2021 - Sep 2022
  - Created backend diagnostic testing service for all vehicle ECU software using **Python** with functional user interface
  - Utilize Jama **REST API** to extract data and automate test cycling through CAN, LIN, Ethernet, IO and OTA communications
  - Optimized CI builds with **Jenkins** to streamline operations using **Kubernetes** for containerized applications management
  - Support **PostgreSQL** database in **AWS** including HTTP calls in codebase for fast and efficient deployments in the cloud
-  **Tesla** Palo Alto, California  
SYSTEM INTEGRATION ENGINEER INTERN Aug 2020 - Dec 2020
  - Special projects group – electrical/firmware testing and integration for multiple projects to advance future Tesla vehicles
  - Extract CAN signal data using **Python** to replicate vehicle movement on LV haptic device to mitigate motion sickness
  - Created IMU sensor system to detect and model orientation of cabin components using **Arduino & MATLAB** via I2C/SPI
-  **Tesla** Fremont, California  
CELL ENGINEERING INTERN Jun 2019 - May 2020
  - Innovated integrated battery systems using **Python** through automating data collection and analysis with **JMP** and **SQL**
  - Created cell simulation using **MATLAB** to output new potential cell build designs that improve energy capacity by **2%**
  - Performed DOE's and implemented quality control processes to improve the cost and efficiency of battery cells

## Education

-  **McMaster University** Hamilton, Ontario  
BACHELOR OF ELECTRICAL ENGINEERING, HONOURS, CO-OPERATIVE PROGRAM Sep 2016 - Apr 2021
  - Relevant Courses: Data Structures and Algorithms, Principles of Programming, Embedded Systems, Image Processing, Microprocessors, Engineering Design, Control Systems, Computer Aided Engineering, Communication Systems

## Projects

-  **GarageEye** PYTHON • GOOGLE CLOUD • FIREBASE • OPENCV • OCR
  - Multi-functional smart home device with several features to safely operate your garage while accepting deliveries!
  - Uses faceID with **OpenCV**, license plate recognition using **Google Vision API**, and voice/in-app commands to open garage
  - Also functions as a security camera, with 24/7 recording available on **Firebase** or **Google Cloud**, with motion detection

## Awards

- |          |  |                     |
|----------|--|---------------------|
| Jun 2020 | <b>Community Contribution</b> , Awarded through demonstration of superior leadership and innovative skills throughout various university activities and contributing to community at-large | McMaster University |
| Mar 2020 | <b>Future Leader Recognition</b> , Awarded for co-op and academic achievements in the workplace, in addition to being an ambassador for the co-op education program in engineering         | McMaster University |