# Maaz Azam

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## Skills

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|---|---|
| **Languages** | Python, Java, C, C++, JavaScript, Bash/Unix, HTML, CSS, SQL/NoSQL, TypeScript |
| **Frameworks** | Django, Angular, jQuery, REST API, ReactJS, Spark, Google Vision API, OpenCV, Visual Studios |
| **Technologies** | AWS, Azure, Git, Google Cloud, Firebase, Docker, Kubernetes, Jenkins, MATLAB, LabVIEW |

## Experience

**Rivian** — *Palo Alto, California*

Software Engineer, HIL Systems — *May 2021 - Present*

- 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

**Eaton** — *Mississauga, Ontario*

Hardware Development and Research Intern — *May 2019 - Jun 2019*

- Integration and testing of smart lighting sensor devices to ensure measured electrical characteristics meet DALI protocol
- Debug production firmware written in **C** and develop testing software using **LabVIEW** for troubleshooting devices

**PAL Aerospace** — *Mississauga, Ontario*

Avionics Engineer Intern — *May 2018 - Aug 2018*

- Conducted and led several aircraft reliability projects such as strain gauge and current testing, using **RCA/FMEA** tactics
- Prepared test fixtures and calibrated LabJack data-acquisition system automated with **C/C++** for stress validation

## Education

**McMaster University** — *Hamilton, Ontario*

Bachelor of Electrical Engineering, Honours, Co-Operative Program — *Sep 2016 - May 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

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|---|---|---|
| Jun 2020 | **Community Contribution**, Awarded through demonstration of superior leadership and innovative skills throughout various university activities and contributing to community at-large | *McMaster University* |
| Mar 2020 | **Future Leader Recognition**, 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* |