

# Mughees Asif

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<https://bymughees.com/>

## EDUCATION

### BEng. Aerospace Engineering

(Predicted: *First*)  
Queen Mary,  
University of London  
Sept. '18 – Jun. '22

- Third-year project: Using a deep reinforcement learning (Python + Proximal Policy Optimization) methodology to enable interstellar planetary rovers to land using 6 degrees of freedom (6DoF).
- Course Representative: Peer-elected; represent students' opinions regularly at Student Staff Liaison Committee meeting. Received Contribution and Engagement Awards.
- Science and Engineering Faculty Student Representative: Promoted to represent the feedback of the full department comprising of  $\approx 3000$  students at senior university committee meetings.
- Student Ambassador: Meeting prospective students; explaining course structure and leading campus tours.

#### Relevant modules:

Systems Analysis and Design	83.4%
Mathematics and Computing II	84.7%
Engineering Mechanics: Dynamics	81.7%
Engineering Design Methods	80.9%
Advanced Engineering Mathematics	78.3%

#### Overall performance summary:

First Year	1:1
Second Year	1:1
Third Year	TBC

## EXPERIENCE

### DSC Lead

Google, Aug. '20

- Developer Student Club (DSC) Lead, in charge of 17 team-members; host workshops highlighting Google Developer products such as Firebase, Cloud and Android development.
- Identify local partners to work with and lead project building activities.

### Brand Ambassador

Feb. '20 - Current

- *Cisco*: Promote the brand and available job opportunities across all corners of the campus.
- *MATLAB & Simulink*: Holding different events at university to highlight functionality of the software suite.

### Mobile Developer

astrix, Mar. – Jul. '20

- Leveraged Google Maps API and React Native (JavaScript ES6+) to build a cross-platform mobile application.
- Deployed the company website using GatsbyJS; *improved web performance by 9%*.

### Software Developer

Formula Student

Oct. '18 – Jun. '20

- Developed a telemetry system, enabling availability of twice more data, including throttle and power response.
- Individually, designed the GUI in JavaFX to increase functionality and usability; *reduced latency by 12%*.
- Created a paddle-shift logic algorithm in C++ to implement into the ECU.

## PROJECTS

### Technical

(source code for all the mentioned projects is available on GitHub)

- **Kotlin**:
  - Created Android open-source Plug&Play templates including a YouTube video player and Flickr Browser clone.
- **Java SE 11**:
  - Used JavaFX to make a telemetry system GUI; designed the backend by implementing real-time data receipt and logging capabilities.
  - Familiar with concurrency, multi-threading, OOP, and the agile methodology.
- **JavaScript (ES6+)**:
  - Built different projects using React & GatsbyJS, in conjunction with, Node.js + ExpressJS to make static, dynamic or hybrid website applications.
- **Python**:
  - Machine learning models (Linear SVC and RidgeRegression) used on classification problems.
  - TensorFlow library used on a computer vision problem of identifying dog breeds.
- Familiar with the fundamentals of **AWS**, including deploying EC2 instances, and using the IAM console to assign permissions and make policies.

## SCHOLARSHIPS

### Royal Academy of Engineering

- Sir Ralph Robins Scholarship: Selected as 1 of 3 students in the UK. The award recognises excellence in engineering from under-privileged and under-represented backgrounds.
- Engineering Leaders Scholarship: 1 out of 30 students in the UK. The award recognises undergraduates who have the potential to become leaders in engineering and who are able to act as role models for future engineers.

### University of Huddersfield

- The Departmental Award for the Best Student: Awarded for excellent engagement and academic achievements (Achieved: First Class / 91% overall) including 100% in all mathematics examinations.

## MISCELLANEOUS

### Communication

### Interests

- Fluent in three languages; English, Urdu, and Punjabi.
- Regularly solve Algorithm and Data Structure challenges on the HackerRank and Leetcode platforms.
- Staying active through a variety of sports including participation in indoor rowing challenges.
- Staying updated on programming best practises through email newsletters such as MIT Tech Review and TLDR.