

EDUCATION

BEng. Aerospace Engineering

Queen Mary, University of London
Sept. '18 – June '21

Overall performance summary:

→ First Year **First**
 → Second Year **First**
 → Third Year **First**

Relevant modules:

→ Orbital Mechanics **92.2%**
 → Mathematics and Computing II **84.7%**
 → Engineering Mechanics **81.7%**
 → Advanced Engineering Mathematics **78.3%**

- Third-year project (93%): Recognised by the **Institution of Mechanical Engineers (IMechE)** as the best third-year project for a finalist. PyTorch implementation of the Proximal Policy Optimization algorithm used to train an agent to autonomously balance an inverted double pendulum. More information available [here](#).
- 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 engineering department comprising of ≈ 3000 students at senior university committee meetings.
- Student Ambassador (SA): Resolving queries from prospective students and leading campus tours.
- MathWorks SA: Campus ambassador; held MATLAB/Simulink online workshops for 100+ students.
- Google Developer Student Club (DSC) Lead: Led a team of 18 students; held workshops for 75+ students; first technological society on campus to have the highest female ratio in leadership positions.

EXPERIENCE

Software Engineer Intern

Arm Ltd.
June – Aug. '21

Mobile Developer

astric, Mar. – Jul. '20

Software Developer

Formula Student
Oct. '18 – Jun. '20

- Development Solutions Group (DSG): Online Tools (OT) team.
- Working on new/existing features for **Keil Studio Cloud IDE** using TypeScript, C++, Jest, Git, and CI/CD.
- 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%*.
- Developed a telemetry system, enabling availability of twice more data.
- Individually, designed the GUI in JavaFX to increase functionality and usability; *reduced latency by 12%*.

AWARDS

University of Oxford

Royal Academy of Engineering

University of Huddersfield

- UNIQ+ Digital: Preparatory course to enable entry into postgraduate education at Oxford via academic mentoring and application proofing from academic staff and current students.
- 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 can act as role models for future engineers.
- 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.

PROJECTS

Technical

(code available as *opensource* on my GitHub profile)

- **Kotlin**:
 - Created Android open-source templates including a YouTube video player & Flickr Browser clone.
- **Java**:
 - Used JavaFX to make a telemetry system GUI; designed the backend by implementing real-time data retrieval and logging capabilities.
- **Python**:
 - Linear Regression used on classification problems; TensorFlow used on computer vision problems.
- **JavaScript**:
 - Built different projects using React & GatsbyJS, in conjunction with, Node.js + ExpressJS to make static, dynamic and/or hybrid website applications.
- **AWS**: Deploying EC2 instances, using the IAM console, querying different databases (Aurora, DynamoDB).
- **SQL**: Familiar with CRUD operations.
- **LaTeX**: Proficiency established through the development of multiple university reports.

Extra

MISCELLANEOUS

Communication Interests

- Fluent in three languages; English, Urdu, and Punjabi.
- Regularly participate in hackathons including Google Hashcode, Expedia Codalytics & Twitter Codechella.
- Staying active through a variety of sports including participation in indoor rowing challenges.
- Staying updated on industry best practises through email newsletters such as Sifted & MIT Tech Review.