Hasha Dar

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EDUCATION

Mechanical Engineering MEng, University College London

2019 - present

Key modules: Mathematical Modelling & Analysis, Fundamentals of Materials, Engineering Dynamics, Introduction to Thermodynamics and Fluid Dynamics, Mechanical Engineering Practical Skills.

A-Levels, Bancroft's School

2017 - 2019

Mathematics A*, Further Mathematics - A, Physics - A, German - B

GCSEs, Bancroft's School

2015 - 2017

4 A*, 4 A, 2 B

ENGINEERING PROJECTS

IMechE Challenge - Squash ball line launcher: Design, build and test 2020

- **Communication:** as the team leader, I liaised with and effectively distributed tasks among my team, playing to the various strengths of my team and meeting deadlines.
- Design: designed a line launcher in a team of six to fire a squash ball (40mm) with
 a line attached into a target with a diameter of 120-490mm. Budgeted to cost no
 more than \$25 and used bought parts as well as proprietary parts.
- IT: used CATIA V5 to produce our first prototype line launcher. MATLAB code was also used for calculations.
- Written communication: a 30 page design portfolio and a PowerPoint presentation were produced to present to a panel of 5 engineering experts.
- End-to-end project management: communication was primarily achieved through Microsoft Teams, where project files were uploaded and worked on together.

OTHER RELEVANT EXPERIENCE

UCL Formula Student Racing team

2019 - present

- Management: worked on the costing and Bill of Materials for the Formula Student race car.
- **Electrical design:** Helped design electrical circuits for components on the race car.

UCL Drone team 2020 - present

• CAD used Autodesk Fusion 360 to design the frame of the drone.

Arkwright Engineering Scholar

OTHER EXPERIENCE

Freelance Photographer

2016 - present

- Leadership: working freelance has taught me various skills, such as time management and effective business strategies.
- **Technical skills:** I have self-taught camera techniques and various photography styles including studio, fashion and event photography.
- Creative portfolio: this may be viewed at hashadar.com

Staff member at Cambridge Islamic Finance Leadership Program

2016 - present

- **Project management:** my role at the programme was to manage the media of the event. This involved social media posts, photography and live streaming.
- **Communication:** working in a team meant that I had to clearly communicate with my team members, in order to make sure that the programme ran smoothly.

Theatre Sound Designer

2017 - present

- Management: I have worked as a lead sound designer for many university and school theatrical performances, integrating into large teams involving stage crew, cast and directors.
- **Technical skills:** I have taken part in training at UCL Stage Crew to create effective and well-structured integrated sound designs for numerous shows.

Private Tutor 2019 - present

- Management: Managing multiple students around my university schedule has taught me discipline and time management skills. Striking a balance is paramount to not falling behind.
- **Communication:** Explaining complex mathematical and physics concepts to younger students requires patience and wit. Finding ways to explain certain concepts differently is important for students who may struggle to understand them.

SOFTWARE

LaTeX: my work can be viewed at github.com/hashadar **Microsoft Office:** Word, PowerPoint, Excel, Teams.

CAD: CATIA V5 and Autodesk Fusion 360.

MATLAB

INTERESTS

Languages: Native in English and Urdu. Conversational in German (B2).

Sport: Fencer and badminton player. Played in national fencing competitions in 2016 and 2017. Captain for Redbridge Fencing team and Bancroft's Fencing team 2015-2018.

Reader: Regular reader of technology news and current affairs.