

[Hishaam Ali Abbasi](#)

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Education

BEng Robotics Engineering, Queen Mary, University of London

Key Modules: Numerical Methods and Data Science (86%), Control Systems and Analysis (78.9%), Modelling and Control of Robotic Systems (75.2%), Design for Human Interaction (70.2%).

Dissertation: Led the development of a high fidelity fracture immobilisation trainer, engineering a fluidic pump architecture and integrating subcutaneous force sensors to calculate a real-time pain index via ESP32 to train medical trainees

Sutton Grammar School

A Levels: Mathematics (A), Physics (A), Computer Science (B)

12 GCSEs including Mathematics (9), Computer Science (8), Physics (8)

Technical Skills

IT: MS Office Suite (Word, PowerPoint, Excel) – High Level, Adobe Photoshop/Illustrator – Intermediate, Davinci Resolve – Intermediate

Languages: Native English, Conversational Urdu

Programming Languages: Java – Advanced, Python – Advanced, C++ – Intermediate, SQL – Basic, C – Basic, HTML/CSS/JS – Basic

CAD & Engineering: Onshape – Advanced, Solidworks – Intermediate, Creo – Intermediate, Inventor/Fusion 360 – Intermediate, Ansys – Basic, 3D Printing (General) – Advanced, Orca – Advanced, AutoCAD – Basic

Hardware and Control: ESP32, Arduino, Raspberry Pi, ROS2, PID Control Loops, Kinematics, Haptics.

Others: Full UK Drivers License

Relevant Employment History

Engineering Design and Research – Internship at Alvis Robotics, Birmingham August 2025 (2 week)

- Company specialised in bomb disposal robots
- Assisted and shadowed the Managing Director in various tasks, including:
 - Research and development
 - Overhauling older robots
 - Debugging firmware issues
 - Financial management
- Developed well-rounded skills in managing complex operations
- Learned to balance and coordinate diverse tasks effectively

Employment History

HSBC Spring Insight Programme

July - August 2024 (3 weeks)

- Developed sector-specific banking skills, including:
 - Analysis of financial data
 - Understanding investment banking processes
- Gained insight into industry and company-specific cultures
- Explored potential career paths in banking after university

Note Summarising and Deducting at AT Medics, London

July – August 2021

- Worked on processing and managing large volumes of data
- Improved system efficiency and data governance
- Helped prevent backlogs in the systems used by a medical practice

COVID Clinic Reception/Front of House at AT Medics, London**December 2020 – March 2021**

- Worked in a team assisting patients receiving COVID vaccinations
- Responsibilities included:
 - Registering patients
 - Guiding patients through the process
 - Assisting with form completion, especially for non-English speakers
- Improved communication and people skills significantly

Personal Engineering Projects

Full Portfolio

- Gyroscopically balanced gimbal (for camera)
- Robotic arm
- BoxTurtle Filament Changer (3D Printing)
- Upgrading Ender 3
- Web Development - <https://www.bones-of-steel.com/>
- Cookie Cutter Online Shop
- Product Development (in work)

Positions of Responsibility

Formula Student**October 2023 – Present**

- Member of the Formula Student team, focused on the suspension system
- Worked on optimising the current suspension geometry using Ansys for improved track performance
- Contributed to the design of a new suspension system for a new car
- Collaborated with other departments to ensure cohesive and high-performance design
- Developed technical skills in suspension design and optimisation
- Strengthened communication skills to coordinate effectively across teams and align design goals

Leadership Roles

Scouts**2012-present**

- Joined the scouting program as a Cub and remained committed through all levels
- Achieved the Chief Scout Diamond Award, the highest level
- Currently a **leader**, organising and running sessions and camps
- Founded a new Explorer section for older Scouts
- Gained key skills, including:
 - Leadership: Essential for guiding teams and ensuring program success
 - Organisation: Managing events and logistics efficiently
 - Problem-solving: Addressing challenges to keep activities running smoothly

Combined Cadet Force**September 2018 – July 2023**

- Progressed to the rank of Flight Sergeant, further enhancing leadership skills
- Responsible for teaching cadets the syllabus, ensuring they understood and applied key concepts
- Led teams during camps and various activities, fostering teamwork and discipline
- Gained experience in mentoring and managing groups effectively under different conditions
- Strengthened ability to adapt leadership style based on situational needs and cadet capabilities