

ABHINAV SAYUJ

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PROFESSIONAL PROFILE

Second-year BEng (Hons) Aerospace Engineering with Space Technology student at the University of Hertfordshire, seeking a 12-month engineering placement from Summer 2027. Experience in CATIA V5, SolidWorks, engineering drawings, prototype manufacturing and testing through individual and team-based projects. Served as Manufacturing Lead in an Mars Rover project involving 8 students, coordinating manufacturing and assembly and implementing design improvements. Interested in aerospace design, propulsion and advanced manufacturing.

EDUCATION

University of Hertfordshire, Hatfield, UK | *September 2025 - June 2029 (expected)*

BEng (Hons) Aerospace Engineering with Space Technology | Current GPA: 4.25/4.5

Relevant modules: Aerospace Design, Engineering Mathematics, Programming, Materials and Manufacturing, Electronics, Aerospace Technology.

TECHNICAL SKILLS

CAD and design: CATIA V5, SolidWorks, 3D part and assembly modelling, engineering and assembly drawings, aerofoil and wing design.

Manufacturing and testing: 3D printing (PLA), foamboard construction, laser-cut MDF, component assembly, prototype testing, design evaluation, centre-of-gravity assessment.

Programming and tools: MATLAB, Python, C++, Arduino; bills of materials, Gantt charts, engineering reports and technical presentations.

ENGINEERING PROJECTS

Mars Rover Design and Development | *Manufacturing Lead* | *University of Hertfordshire*

- Developed custom mechanical components using CATIA V5; prepared part and assembly drawings, exploded diagrams and a bill of materials to support manufacture.
- Coordinated manufacturing and assembly within a team of 8 students to deliver a functional rover prototype.
- Diagnosed manufacturing and design issues, revised the prototype after an unsuccessful initial review and achieved acceptance of the minimum viable prototype.
- Collaborated on Arduino-based control-system integration across mechanical, electronics and programming tasks.

Individual Aircraft Design and Build | *Independent University Project*

- Designed and built a miniature foamboard aircraft in CATIA V5, including aerofoil-shaped wings and stabilisers with supporting engineering drawings.
- Applied aerodynamic and centre-of-gravity considerations; evaluated flight performance and adjusted weight distribution after testing.
- Achieved an A grade for the completed project.

Team Glider Design and Development | *Design and Testing* | *University of Hertfordshire*

- Collaborated with a team of 8 students on aerofoil and wing design, engineering drawings and centre-of-gravity assessment for an unpowered fixed-wing glider.
- Manufactured and assembled glider components, conducted launch trials with the team and revised the design using test observations.
- Maintained Gantt chart activities and prepared material for the technical poster and final presentation.

EMPLOYMENT EXPERIENCE

Tesco — Checkout Assistant | *Potters Bar, UK | November 2025 - Present*

- Process customer transactions accurately and operate checkouts in a busy retail environment.
- Resolve customer enquiries and coordinate with colleagues to manage checkout queues during peak periods.
- Maintain reliability and attention to detail while balancing part-time work with full-time engineering studies.

VIRTUAL ENGINEERING EXPERIENCE

GE Aerospace — Explore Engineering Job Simulation (Forage) | *October 2025*

- Researched alternative propulsion energy sources, comparing energy density, cost and storage considerations.
- Investigated the influence of turbofan bypass ratio and compression ratio on engine design and performance.
- Communicated technical findings through a structured presentation.

Airbus — Virtual Work Experience (Springpod) | *Springpod virtual programme*

- Explored aircraft design and sustainable aviation through structured virtual learning activities.
- Produced conceptual Future Aircraft sketches and researched aviation sustainability considerations.

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Royal Aeronautical Society | *Student Affiliate | September 2025 - Present*

Access professional aerospace engineering resources and seminars on instrumentation, design and manufacturing.

University of Hertfordshire Rocketry Society | *Member | October 2025 - Present*

Explore rocket design, aerospace systems and technical learning through society membership.

SELECTED CERTIFICATIONS

MATLAB Certification - MathWorks (September 2025) | CATIA V5: Surfacing - LinkedIn Learning (October 2025) | Practical Engineering - LinkedIn Learning (October 2025)

ADDITIONAL INFORMATION

Languages: English, Hindi, Malayalam | Interests: Aerospace propulsion, electric aviation, rockets and space exploration.