Ashen Wijayaratne

ashenw26@outlook.com | linkedin.com/in/ashen-wijayaratne | ashenwijayaratne.com | Ireland (EU & UK work rights)

Third-year Aeronautical Engineering student (QCA 3.62/4.0) with hands-on experience in CAD, aerodynamic analysis and design optimisation, seeking a **Summer 2027 internship** in product development or design and analysis.

TECHNICAL PROFICIENCIES

CAD & Drawings:	SolidWorks (CSWA), PTC Creo, technical drawings, GD&T, tolerancing
Design for Manufacture:	DFMA, DFAM (CSWA-AM), topology optimisation (Altair Inspire)
Analysis & Programming:	Python, MATLAB, Excel, XFOIL/XFLR5, LaTeX
Currently Learning:	SolidWorks Simulation (FEA), Star-CCM+ (CFD)

EXPERIENCE

SR Technics Airfoil Services, Cork | *Product Process Engineering Intern* May 2026 to Present

EASA Part-145 MRO specialising in turbine blades and vanes for CFM56, LEAP, Pratt & Whitney and Rolls-Royce engines.

- Supporting product process engineering for CFM56 nozzle guide vanes, outlet guide vanes and vane sectors, working alongside engineering supervisors and operators to monitor repair processes and resolve production issues.
- Developed an automated SQL reporting workflow to generate daily scrap reports and track product rework cycles, saving co-workers more than 4 hours of manual work each week.
- Prepared engineering reports and technical documentation for communication with OEMs and other regulatory bodies.
- Updated operator instruction sheets (OP sheets) to make repair procedures clearer for production-line operators.

ULAS HiPR, University of Limerick Jan 2026 to Present

Student-led rocketry team designing, building and launching experimental rockets.

Thrust Structure Design Engineer Sep 2026 to Present

- Responsible for the design of a metal 3D-printed thrust structure for Dagda, the team's EuRoC 2027 rocket, which will carry an estimated 5 kN of engine thrust and Ireland's first-ever collegiate liquid rocket engine used in flight.

Avionics & Structures Design Engineer Jan 2026 to Aug 2026

- Designed and built the avionics and payload bays for both stages of Dullahan, a 2.65 m two-stage rocket, from requirements through SolidWorks CAD and engineering drawings (GD&T, tolerancing, DFM, DFAM) to workshop manufacture and integration.
- Topology-optimised the payload holder and battery cradle in Altair Inspire for launch, descent and impact load cases, with overhang and print-direction constraints for 3D printing, reducing component mass by 50% on average.

Formula Student UL, University of Limerick | *Rear Wing Lead Engineer* Sep 2026 to Present

Student team designing, building and racing a single-seater race car for Formula Student competitions.

- Currently leading rear-wing development for the 2026/27 car. Conducting aerodynamic analysis using XFLR5 and Star-CCM+ and designing in SolidWorks.

SELECTED PROJECTS

Wing Optimisation for a Hypothetical Electric GA Aircraft (University Project, Grade: 96%) Report | Code

- Built a Python-based optimisation workflow to evaluate 170+ NACA airfoils in XFOIL, selecting the optimum section via a weighted multi-criteria performance matrix.
- Refined the 3D wing in XFLR5 by iterating aspect ratio and taper ratio, achieving a predicted cruise glide ratio of 31.46, then sized a high-lift flap system to meet stall requirements.

Battery-Powered Hill-Climb Vehicle (Team lead, University Project, placed 11th of 45, Grade: A1) Write-up

- Led a team of five from concept through calculations, drawings and aluminium-sheet fabrication to race day, within a 6-hour manufacturing limit, for UL's Design, Build, Compete module.
- Built the Excel model that compared 80 pulley and wheel combinations and picked the fastest within the 0.025 N m motor torque limit, and made the vehicle's SolidWorks model.

EDUCATION

University of Limerick - Limerick, Ireland Sep 2024 to May 2028 (expected)

- B.Eng Aeronautical Engineering: 3rd year student maintaining a Quality Credit Average (QCA) of 3.62/4.0.
- President's Letter for Outstanding Academic Achievement during three of four academic semesters so far.
- Serving as UL's School of Engineering Student Representative for academic year 2026/27.

Templeogue College - Dublin, Ireland 2022 to 2024

- Leaving Certificate: 589/625 points, notable results in Mathematics (93%), Physics (97%), and Biology (99%).
- Bronze Medallist, Irish Olympiad of Experimental Science 2022/23.

MEMBERSHIPS & INTERESTS

- **Memberships:** Student member of Engineers Ireland and the Institution of Mechanical Engineers (IMechE).
- **Sport:** Treasurer of the UL Amateur Boxing Club (around 300 members); Consistently training boxing and MMA.
- **Chess:** Playing for over six years and former school team captain. FIDE Blitz rating: 1605.