FINLEY TAYLOR

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PROFILE

Second-year BEng Mechanical Engineering student working towards a career in analysis and R&D, with a developing focus on simulation, structural dynamics and impact. Strongest results to date in computation and materials — 92% in a MATLAB examination and 90% in a materials testing laboratory report — alongside CAD and finite element analysis work in both group design and independent projects. Director and shareholder in a UK freight business since 2025, with hands-on experience across its operations alongside full-time study.

EDUCATION

BEng (Hons) Mechanical Engineering — Canterbury Christ Church University *Sep 2025 – Jun 2028*

- Year One: 60% overall (Upper Second Class standard); first year does not contribute to final classification
- Highest results: MATLAB examination 92%; Materials Science and Testing laboratory report 90%
- Relevant modules: Computer Aided Engineering; Applied Mathematics and Programming; Materials Science and Testing

A-Levels and GCSEs — Borden Grammar School *2017 – 2024*

- A-Levels: 3D Product Design (B), Physics (C), Film Studies (C)
- GCSEs: 10 subjects at grades 7–5, including Grade 7 in Mathematics, Physics and Design Technology

TECHNICAL SKILLS

CAD and Simulation: Fusion 360 — parametric part and assembly modelling; Von Mises stress analysis (FEA) applied in both group design and personal projects

Technical Drawing: Production and interpretation of engineering drawings, including tolerancing and geometric dimensioning and tolerancing (GD&T)

Analysis and Computation: MATLAB (92% examination)

Materials Testing: Tensile, compression, flexural, fatigue, creep and Charpy impact testing (Instron 34TM-50 universal testing machine, TQ rotating-beam and creep rigs, Bluehill Universal); Rockwell and Vickers hardness

Characterisation: Metallographic specimen preparation, polishing and etching; optical microscopy; SEM with backscattered-electron imaging and EDS elemental mapping

Workshop Practice: Centre lathe turning, drilling, tapping, counter-boring, chamfering and filing to technical drawings; 3D printing; laser cutting; silicone moulding

Software Delivery: Specify and deliver working applications using AI coding tools; two applications built and running

ENGINEERING PROJECTS

GolfLab — Golf Club Design and Analysis Platform — Self-directed *2026 – present*

Self-directed golf club design and analysis tool, specified from a working knowledge of club design and built with AI coding tools.

- Defined the engineering scope and the physics to be modelled: swing weight with Lorythmic scale conversion, moment of inertia, and centre of gravity — using researched physical constants rather than assumed values
- Specified the club specification data model, including per-club-type dimensional limits and the validation rules applied to each
- Specified a prototype comparison feature producing signed deltas between design iterations, with visualisation of balance point, grip span, shaft midpoint and head position
- Directed the build through AI coding tools, assessing output against the intended engineering behaviour and iterating to a working platform

Rotary Test Rig — CDIO Group Design Project — Canterbury Christ Church University *Mar – May 2026*

Four-person team designing and building an Arduino-based motor test rig measuring shaft speed, vibration, temperature and axial load in real time.

- Shared the CAD and 3D-printing workstream in a four-person team, modelling rig components in Fusion 360 — motor bracket, gearbox and load-cell housings, sensor mounts, weight plates and electronics enclosure
- Ran Von Mises stress analysis on the load-bearing assembly, applying fixed constraints at the housing base faces and a 0.392 N load at the weight plate; results confirmed structural adequacy and informed sensor placement away from stress concentrations

- Investigated an implausible deformation result and established it was a visual scaling artefact of the solver rather than a physical prediction, allowing the analysis to be interpreted correctly
- Iterated component designs against calliper-measured dimensions and a 1 mm assembly tolerance, including a gearbox redesign after 3D-printed CVT cones deformed under light load, replaced with a gear and pulley-belt drive delivering stable shaft speed near 1,500 RPM

PROFESSIONAL EXPERIENCE

Company Director — Freight Forever Ltd, Kings Hill, Kent *Apr 2025 – present*

- Director and shareholder of a UK road haulage and freight business, contributing to operational and strategic decisions alongside the wider ownership
- Strengthened operational controls to reduce claim exposure, protecting upwards of £200,000 in a single financial year
- Work across transport planning, administration, and day-to-day communication with customers, hauliers and retailers, building end-to-end knowledge of freight operations and a position of trust in how the business is run
- Identified manual, error-prone operational processes and specified an in-house transport management system to replace them, directing the build to a working order entry stage

Founder — FT Web, Kent *Aug 2026 – present*

- Founded and run a web design studio serving businesses across Kent and remotely across the UK
- Deliver website design and build, site structure and copy, technical SEO and performance optimisation
- Manage the full cycle independently: client acquisition, scoping, build and ongoing support

Transport Coordinator (Part-time) — Freight Forever Ltd, Kings Hill, Kent *Jun 2023 – Sep 2025*

- Coordinated the movement of goods across regional and national distribution networks
- Developed working knowledge of road haulage and freight logistics operations, and liaised with customers, hauliers and industry contacts to keep consignments on schedule
- Sustained the role alongside A-Level study and through to the start of an engineering degree, progressing to a directorship of the company in 2025

Golf Operations and Hospitality Assistant — Toptracer, Sittingbourne, Kent *Jul 2021 – Jun 2023*

- Joined during the construction phase of a Toptracer driving range, carrying out hands-on manual work, then moved into a customer-facing role on opening
- Worked across both golf operations and hospitality, gaining direct exposure to ball-flight tracking technology and how golfers use launch and flight data
- Delivered consistent service in a high-throughput, customer-facing environment

ADDITIONAL INFORMATION

Professional Membership: Affiliate Member, Institution of Mechanical Engineers (IMechE)

Golf: Played for the Canterbury Christ Church University golf team in first year. Playing since 2021; current handicap index 12.4. Member of Faversham Golf Club, previously Boughton, Upchurch and Cobtree Manor Park

Driving Licence: Full UK licence, held since November 2023

Other: Form captain throughout secondary school, 2017–2022; member of the school cricket team

References available on request.