Eoghan Collins

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github.com/ETM-Code

Professional Summary

Entrepreneurial electrical engineering student and founder building StudySmith—an AI-native spaced-repetition and semester-planning platform—with a track record from an Irish power-grid digital twin and optimisation engine to low-cost concussion sensors and AI for Fintech pitches.

Active in societies, hackathons and media; featured speaker at NDRC, Patch, Work in Fintech, CleanerGrid, and PorterShed. Focused on real-world impact and thriving in fast-paced, high-ownership environments.

Experience

Founder & Director, *StudySmith* *May 2025 - Present*

- Founded and solo-developed an AI B2C SaaS for personalised, course-specific education using learning science, personal AI, and tailored learning journeys.
- Built and deployed a full-stack AI pipeline: subject ingestion, study plans, exercises, categorised exam question lists; plus auth, paywalls, high-converting landing page, and polished UI.
- Won NDRC Founders' Weekend; pitched at NDRC Pre-Accelerator/AI Venture Forge; conducted extensive user and expert interviews.
- Spoke with customers, educators, and learning science experts to ensure rigor and impact.
- Built a waiting list spanning 8 universities with 50+ signups from a single post.

Summer Research Fellow – Laser Power Transmission, *Tyndall National Institute* *June 2025 - August 2025*

- Built visible-light laser power link powering CMOS at up to 26% efficiency.
- Demonstrated 5 KB/s optical link; modeled path to $>$1 MB/s over 40 km.
- Designed TE laser stabilization; automated characterization and PV modeling (Python + SPICE).

Project Lead, *GridAI/University of Galway* *November 2024 - March 2025*

- AI-driven energy policy simulator in Rust: 2.5M sim-years/hour on consumer hardware.
- Optimizes emissions, cost, opinion, reliability, permits with 500+ constants and interpretable 25-year forecasts.
- Net-negative by 2050 with 100% reliability at €76B (-€50B vs national). github.com/ETM-Code/eirgrid

Co-Founder and Chief Software Engineer, *Patch (ForceField)* *July 2024 - August 2024*

- Selected to Patch Youth Accelerator; led business development for concussive impact sensors.
- Built WiFi mesh: lossless 6,000 datapoints/s; 100m+ per sensor; scalable to 1.5km+ (vs 20m BLE).
- Co-designed hardware/data stack at €35/unit; presented to key stakeholders with strong feedback. More

Operations and Communications Intern, *PorterShed* *May 2024 - July 2024*

- Wrote blogs and press picked up by local media.
- Ran GenAI hackathon (50+) and entrepreneurship workshop (30+); built chatbot used by 50+.

Education

University of Galway, *BEng in Electrical and Electronic Engineering* *2023 – 2027*

- First Class Honours in Years 1–2 (1.1 / 4.0 GPA); now Year 3.