EOGHAN COLLINS

✉ eoghancollins0@gmail.com 💻 eoghancollins.com ⬛ ETM-Code ⬛ Eoghan Collins

EDUCATION

2023-2028 (Est. Graduation)	**BA/MA in Electrical and Electronic Engineering, 2nd Year**
University of Galway	**First Year Result:** First Class Honours (1.1)
	Key Point: Developed transmission software for coursework telemetry project achieving 600% throughput increase from baseline and using a custom serial plotter (details at https://eoghancollins.com/technical#LanderCode)
	Second Year Semester 1 Result: First Class Honours (1.1)
	Second Year Expected Result: First Class Honours (1.1)
	Key Point: Leading team of 4 in University RoboWars development utilizing a wide variety of electronics and mechanical engineering techniques.
2021-2023	**Leaving Certificate**
	625 Points

EXPERIENCE

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

- Selected as 1 of 33 in the 2024 Patch Youth Accelerator by Dogpatch Labs.
- Led business development with co-founders, deciding on impact detection sensors for sports.
- Co-designed the sensor and software to ensure effective data acquisition, transmission, and analysis.
- Developed novel WiFi-based mesh-network and data-transmission code to allow the efficient, lossless transmission of biometric data at long-ranges, allowing 6,000 datapoints/second to be transmitted, providing high-fidelity sensor data to the user.
- The mesh network and WiFi approach also provided a range of over 100m for one sensor and a theoretical range of over 1500m for a full hurling team. This is opposed to competitors offering ranges of 18.28m with BLE approaches.
- Built the high-fidelity sensor at an estimated production cost of €35/unit.
- Coordinated team to meet project deadlines across 7 weeks, receiving positive feedback from players and coaches.
- Presented the project to key stakeholders, including John Collison and Dogpatch Labs.
- For more details visit https://eoghancollins.com/technical#ForceField.

2024   **Operations and Communications Intern**
PorterShed

- Authored blog posts and press releases leading to media coverage in local news stations.
- Collaborated with the team to manage major events, including a GenAI Hackathon (50+ developers) and an entrepreneurship workshop (30+ researchers).
- Created a chatbot for a hackathon used by 50+ participants.
- Managed daily operations, including secretarial work and appliance testing for compliance.

2024 **Electronics Course Assistant - Youth Academy**
University of Galway

• Directed support for 2 groups of 16 primary students (ages 9–13) in a 6-week Saturday electronics course.
• Managed classroom setup, attendance tracking, material transfers, and computer configurations.
• Taught and troubleshot electronic circuits, microprocessor programming, and robotics.
• Ensured a positive learning environment by organising regular bonding activities.
• Maintained safety protocols and clear communication with parents during sign-in/out.

2024 **Peer Leader | CÉIM Peer Assisted Learning**
University of Galway

• Conducted 19 sessions for 52 first-year engineering students, averaging 18 attendees per session, with a peak of 32.
• Covered key topics across 10 modules, helping students learn through activities, and the share of personal experience and personable advice.
• Collaborated with two co-leaders to design student-focused sessions, leveraging calendars, polls, and gamified activities like quizzes and competitions to boost engagement.
• Implemented WhatsApp and Kahoot, and Yourspace for communication and delivery, and shared insights in biweekly debriefs to refine sessions. This student-focused approach resulted in attendance increase of 2x to 5x that of other groups.

2024 **Mathematics Tutor**
Superprof

• Delivered targeted maths lessons with detailed plans, primarily at a Leaving Cert Level.
• Received an average 5 star review across 26 lessons, with positive feedback from students.

SKILLS

Communication Skills

Public Speaking: Delivered presentations at events, workshops, and to stakeholders
Content Creation: Produced engaging blogs, press releases, and technical documents.
Interpersonal Communication: Facilitated effective team collaboration and client interactions.

Leadership Skills

Team Management: Led teams effectively and through example, ensuring project alignment and timely delivery.
Conflict Resolution: Mediated team conflicts, maintaining productivity and cohesion.

Languages

Fluent in Spanish

Programming

• **Frontend:** React, HTML, CSS, Next.js, JavaScript/TypeScript
• **Backend/Misc:** C, C++, Python, JavaScript/TypeScript, Electron, MySQL, Git
• **Integrated Systems:** Arduino, Espressif, ESP-Now

Engineering

• **Circuit Design & Prototyping**: Designed and built custom circuits for practical applications using DIYLC and KiCAD, including coursework and ForceField Sensors.
• **Testing & Debugging**: Diagnosed and optimized complex logical and analogue circuits, improving efficiency and performance in real-world applications.
• **Embedded Systems & Mechatronics**: Engineered electronics for competitions, coursework, and startups, including sensor networks and highly responsive aiming mechanisms.
• **Software Integration**: Programmed embedded systems in C/C++ and Python, ensuring seamless interaction between hardware and software components, with a multitude of failsafes.