

Fergal Riordan

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PROFILE

Software Engineer with a First-Class Honours MEng in Electronic & Computer Engineering from Trinity College Dublin. Experience spans Agentic AI development for a Partner Relationship Management (PRM) platform, RLHF data annotation for LLMs, and generative AI research in CycleGAN architectures. Proficient in Python and PyTorch, with a passion for building responsible, human-centred AI solutions.

TECHNICAL SKILLS

Key Competencies

Programming Languages

Frameworks & Libraries

Tools & Platforms

Agentic AI, Generative AI, Prompt Engineering

Python, C, SQL

LangChain, PyTorch, Pandas, NumPy

Azure, Cosmos DB, Docker, Ollama, Git

PROFESSIONAL EXPERIENCE

- May 2025 — Present **Software Engineer - AI Team, Channelscaler** Galway, Ireland (Hybrid)
Azure, Python, Cosmos DB, OpenAI API
- Contributed to the company's first AI team, delivering automation features and agentic workflows for a leading AI-powered Partner Relationship Management (PRM) platform.
 - Co-developed the company's first AI agent, combining Cosmos DB NoSQL query-based information retrieval with autonomous actions such as sending client emails and updating database records.
- Sep 2023 — Apr 2025 **AI Data Annotator – Software Development, Data Annotation Tech** Remote
Python, Prompt Engineering, RLHF
- Trained LLM-based chatbots for advanced programming and data science tasks through RLHF and A/B testing, applying analytical techniques and prompt engineering skills.
 - Qualified for a domain expert team through consistent success in performance assessments, focusing on advanced CS topics including the evaluation of AI coding assistants integrated into modern IDEs.

RELEVANT PROJECTS

- Sep 2023 — Apr 2024 **Master's Thesis: Enhancing CycleGAN for Day-to-Night Image Translation**
[View Project](#)
Python, PyTorch, GANs, Transfer Learning, Computer Vision, Deep Learning
- Improved CycleGAN performance using transfer learning, a content-style disentangling scheme, and a novel timestamp conditioning architecture.
 - Achieved an improvement of 20% on the Kernel Inception Distance metric over the baseline model.
 - Earned a high First-Class Honours grade of 82% for the research.
- Feb 2025 — Mar 2025 **Personal Project: Automated Web Development with the DeepSeek API**
[View Project](#)
Python, TypeScript, Flask, React, Open-Source AI Models, JSON Parsing, API Integration
- Built a tool to generate full-stack web apps from natural language prompts using the DeepSeek API.
 - Implemented a Flask backend and React frontend for automated code generation and file download.

EDUCATION

- Sep 2019 — May 2024 **Integrated MEng and BEng, Electronic & Computer Engineering, Trinity College Dublin** Dublin, Ireland
- Master's Result: 1.1 (80%)
 - Bachelor's Result: 1.1 (72%)
 - Erasmus semester at The University of Iceland, Reykjavík
- Sep 2013 — Jun 2019 **Leaving Certificate, Christian Brothers College** Cork, Ireland
- 625 points (7 H1 grades, 1 H2)
 - [Ranked among top 70 students nationally](#)

EXTRA-CURRICULAR ACTIVITIES

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|---------------------|---|-----------------|
| Sep 2021 — May 2022 | Control Team, Formula Trinity | Dublin, Ireland |
| | <ul style="list-style-type: none">• Participated in Formula Student AI, an international engineering competition where teams design autonomous race cars to compete in tasks such as driving, obstacle avoidance, and precision navigation.• Implemented control algorithms (PID, Model Predictive Control) for the self-driving vehicle, enhancing precision and responsiveness for FS-AI competitions.• Gained hands-on experience in a large-scale software project, learning to solve complex problems in a collaborative team environment. | |

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| LANGUAGES | English | Native speaker |
| | Irish | Fluent (C1) |
| | French | Conversational (B1) |
| | Spanish | Basic (A1) |
| | German | Basic (A1) |

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| SOFT SKILLS | • <i>Strong Work Ethic:</i> Honest and hard-working mindset instilled through background on a family farm and reflected in academic achievements. |
| | • <i>Communication Skills:</i> Developed through part time work in high-pressure hospitality roles. |
| | • <i>Innovative & Ambitious:</i> Evident through the completion of a challenging Master’s thesis and ongoing skill development in emerging technology. |
| | • <i>Cultural Adaptability:</i> Enhanced by Erasmus semester and a long-standing passion for language learning. |
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| HOBBIES | • <i>Soccer:</i> Played 11-a-side soccer throughout my teenage years and continue to play 5-a-side regularly. |
| | • <i>Water Sports:</i> Advanced SSI certification in scuba diving; enjoy surfing and sailing regularly during summer. |
| | • <i>Guitar:</i> Proficient in both acoustic and electric guitar, with experience spanning over 15 years of playing and performing. |
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