Fergal Riordan

Ireland (Willing to relocate) | +353 838754381 | fergalriordan333@gmail.com | Portfolio Website | GitHub | LinkedIn

Profile

AI Engineer with **1 year of professional experience** building production-ready AI systems and **2 years of freelance experience** in AI data annotation. Experience spans agentic AI development for B2B SaaS, RLHF data annotation for LLMs, and generative AI research in GAN-based architectures. Earned First-Class Honours MEng and BEng degrees in Electronic & Computer Engineering from Trinity College Dublin.

Technical Skills

Key Competencies:	Agentic AI, Generative AI, ML Research, Model Fine-Tuning, Prompt Engineering
Languages:	Python, SQL, C
Frameworks & Libraries:	LangChain, LangGraph, PyTorch, Pandas, NumPy
Developer Tools:	Microsoft Azure, Azure AI Services, Cosmos DB, Docker, Git

Experience

AI Engineer May 2025 – Present
Channelscaler *Galway, Ireland*

Overview of AI Features
Python, Microsoft Azure, Azure OpenAI API, Azure Document Intelligence, Cosmos DB

- Co-developed the platform's first AI agent, focusing on deal registration. The agent retrieves deal information, identifies potential duplicates, and automates checks, boosting efficiency and reducing manual review time.
- Architected agent orchestration, implementing tool-usage functionality for autonomous actions.
- Enhanced an OCR-based invoice auditing pipeline using Azure Document Intelligence by fine-tuning key-value extraction models and expanding field coverage to support additional audit checks.

AI Data Annotator Sep. 2023 – Apr. 2025
Data Annotation Tech *Remote, Ireland*

Python, Prompt Engineering, RLHF

- Trained and refined AI coding agents using RLHF and prompt-engineering techniques.
- 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.

Research & Selected Projects

Master's Thesis: Enhancing CycleGAN for Day-to-Night Image Translation Sep. 2023 – May 2024
View Project
Python, PyTorch, GANs, Transfer Learning, Computer Vision, Deep Learning

- Improved CycleGAN performance for day-to-night image translation 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 First-Class Honours grade of 82% for the research.

Education

Trinity College Dublin Dublin, Ireland
Master of Engineering & Bachelor of Engineering in Electronic & Computer Engineering *Sep. 2019 – May 2024*

- MEng: First-Class Honours (1.1), 80%
- BEng: First-Class Honours (1.1), 72%
- Erasmus semester at the University of Iceland, Reykjavik

Christian Brothers College Cork, Ireland
Leaving Certificate *Sep. 2013 – Jun. 2019*

- Ranked in top 70 students nationally
- 625 points (7 H1 grades, 1 H2 grade)