

# Fergal Riordan

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## PROFILE

Software Engineer with a First-Class Honours MEng in Electronic & Computer Engineering from Trinity College Dublin. Experienced in machine learning and full-stack development, with a background spanning RLHF training for AI agents, AI-powered PRM platforms, and image-to-image translation using CycleGAN. 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*

**Generative AI, Computer Vision, LLMs, Agentic Workflows**

**Python, C#, C, SQL**

**PyTorch, scikit-learn, Pandas, NumPy, OpenCV**

**Git, Microsoft Azure, SQL Server**

## PROFESSIONAL EXPERIENCE

- May 2025 — Present    **Software Engineer, Channelscaler**    Galway, Ireland (Hybrid)
- Azure AI Services, Python, C#, SQL, Blazor, .NET*
- Contributing to a leading AI-powered partner relationship management (PRM) platform, currently expanding with AI-driven insights and automation features.
  - Integrating AI services into full-stack features in a microservice architecture.
- 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

Sep 2021 — May 2022	<b>Control Team, Formula Trinity</b>	Dublin, Ireland
	<ul style="list-style-type: none"><li>• 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.</li><li>• Implemented control algorithms (PID, Model Predictive Control) for the self-driving vehicle, enhancing precision and responsiveness for FS-AI competitions.</li><li>• Gained hands-on experience in a large-scale software project, learning to solve complex problems in a collaborative team environment.</li></ul>	

LANGUAGES	<b>English</b>	Native speaker
	<b>Irish</b>	Fluent (C1)
	<b>French</b>	Conversational (B1)
	<b>Spanish</b>	Basic (A1)
	<b>German</b>	Basic (A1)

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 &amp; 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.

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.