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

Generative AI, Computer Vision, LLMs, Agentic Workflows Key Competencies

Programming Languages Python, C#, C, SQL

Frameworks & Libraries PyTorch, scikit-learn, Pandas, NumPy, OpenCV

Tools & Platforms 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

Mar 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 BEng and MEng, 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 Control Team, Formula Trinity

Dublin, Ireland

- 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.

LANGUAGES

English Native speaker **Irish** Fluent (C1)

French Conversational (B1)

Spanish Basic (A1) **German** Basic (A1)

SOFT SKILLS

- Strong Work Ethic: Honest and hard-working mindset instilled through background on a family farm and reflected in academic achievements.
- Communication Skills: Developed through part time work in high-pressure hospitality roles.
- *Innovative & Ambitious:* Evident through the completion of a challenging Master's thesis and ongoing skill development in emerging technology.
- Cultural Adaptability: Enhanced by Erasmus semester and a long-standing passion for language learning.

HOBBIES

- Soccer: Played 11-a-side soccer throughout my teenage years and continue to play 5-a-side regularly.
- Water Sports: Advanced SSI certification in scuba diving; enjoy surfing and sailing regularly during summer.
- Guitar: Proficient in both acoustic and electric guitar, with experience spanning over 15 years of playing and performing.