

Aaron Connolly

Portmarnock, Dublin, Ireland | +353 0834774263 | [aaronjconnolly@gmail.com](mailto:aaronjconnolly@gmail.com)

## EDUCATION

### Technological University of Dublin (TuDublin)

Bachelor of Computer Science

Dublin, Ireland

Expected May 2026

**Grade:** First Class Honours (1:1), in year 3. (Equivalent 4.0 GPA)

**Relevant Coursework:** Software Engineering, Introduction to AI, Algorithms & Data Structures, Databases, Programming/OOP, Cloud Computing, Client Server Programming

## WORK EXPERIENCE

### Workhuman (#1 Employee Recognition Software)

Dublin, Ireland

Software Engineer Intern (AI-Assistant Team)

Feb 2025 - Aug 2025

- Improved AI response accuracy and user experience as measured by enhanced query routing precision. Achieved this by modifying positional embeddings for semantic routing, and prompt engineering for LLM routing within an agentic AI architecture
- Enhanced system reliability and stability by conducting comprehensive root cause analysis on RAG generative-AI components, creating detailed technical stories for issue tracking, and implementing development fixes to resolve critical system failures. This resulted in successful issue remediation and reduced system errors.
- Optimised AWS ECS cluster performance as measured by improved system bandwidth and resource utilisation by conducting comprehensive JMeter load testing and fine-tuning configurations based on performance data analysis
- Enhanced team collaboration and project velocity as measured by consistent sprint goal achievement by actively participating in daily scrum meetings, even briefly acting as Scrum Master and contributing to agile development processes throughout critical pre-launch period

## Projects

- Custom LLM - Python, PyTorch, NumPy
  - Built a functioning GPT-2 Model entirely from scratch, including entire transformer architecture
- AI Interview Coach using Gemini Model
  - Web application that simulates an interview experience using a Google Gemini AI model. It helps users practice answering interview questions and receive feedback on their responses
- Java Music Visual project
  - Processed audio frequency and amplitude data. mapping it to real-time visual effects
- Personal Website
  - Developed and deployed a portfolio website using React, TailwindCSS, and HTML/CSS; hosted on GitHub.
- Predictive Analysis Model with Machine Learning
  - I Implemented a multi-layer perceptron using NumPy to perform Iris flower classification after training on a small dataset. I tested with the effects of varying hyper parameters like the number of hidden neurons and the learning rate

## CERTIFICATES

AI Orchestration: Foundations - LinkedIn

Agentic AI for Developers: Concepts and Application for Enterprises - LinkedIn

## Extracurriculars

### Camp Cadicasu

Calgary, Alberta, Canada

Cabin leader, out-tripping leader

June 2023 - Aug 2023 & June 2024 - Aug 2024

- Fully responsible for 8 kids 20+ hours a day for 5-day rotations. Ages ranged from 7 to 15.
- Responsibilities included carrying out activities, creating programming, caring for all campers needs, including waking up, getting to bed, illness, homesickness.
- Led multiple groups of up to 12 campers on multi-day backpacking trips in the Canadian Rockies.

