

Ferdia Matti Treacy

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🔗 ferdiaMT 📁 My Portfolio

Education

- | | | |
|-----------|---|----------------------|
| BS | Maynooth University , Computer Science and Software Engineering | Sept 2023 – May 2027 |
| | <ul style="list-style-type: none">• Year 2 : 86.8%• Year 1 : 88.3%• (See Appendix for result breakdown) | |
| LC | St Josephs Rochfortbridge , Leaving Cert. | Sept 2017 – May 2023 |

Projects

Microsoft Subtitle Translator

[Subtitle Translator](#) 

- Collaborated in a team of 6 to build a full stack web application in an agile framework. Mentored by Microsoft.
- Built a web app within an 8 week deadline that takes in movie length subtitle files, parses and translates them with editing capabilities, before returning in a target language.
- Implemented Azure technologies such as AI voice recognition and Live Translation.
- **Tools Used:** Javascript, Css, React, NodeJS , Azure Web Services.

Gameboy Emulator

[Gameboy Emulator](#) 

- Built a Game Boy emulator in modern C++ using only SDL3 and the C++ STL library.
- Implemented CPU, PPU, memory, and LCD timing with cycle-accurate execution.
- Passed all CPU testing; supports basic MBC and real-time rendering via SDL3.
- **Tools Used:** C++ , Assembly , SDL3 , CMake , Visual Studio Debugger.

EtymologySearch

[EtymologySearch](#) 

- Created a React-based web application that allows users to input a sentence and highlights the etymology origin of each word.
- Built a Flask API that performs web scraping on www.etymonline.com using BeautifulSoup4 to web scrape etymology data for words.
- Implemented RESTful API endpoints for seamless integration with the React frontend. Deployed the app on heroku for usability.
- **Tools Used:** Python, Flask, Heroku , Javascript, Css, Html.

Employment

The Roost, Barman

Maynooth , Kildare
Sept 2024 – Nov 2024

- Provided fast and friendly service to guests in a busy bar environment.
- Maintained cleanliness, hygiene standards, and stock levels throughout shifts.
- Worked long hours, did both day and night shifts.
- Handled cash and card transactions accurately while operating tills.
- Communicated effectively with team members to ensure smooth bar operations.

Liberty Hall Theater, Bar Porter / Cleaner

Dublin City Center, Dublin
June 2022 – Sept 2022

- Collected and cleaned glassware during shifts to maintain smooth bar operations.
- Mopped floors and wiped down tables regularly to keep areas clean and safe.
- Sanitized surfaces and areas to comply with hygiene and safety standards.
- Carried out comprehensive end of shift cleaning duties, including cleaning and sanitizing toilets, restocking essential supplies, and ensuring all areas met strict hygiene and safety standards.

Volunteering

Maynooth University, Computer Science Center Tutor

Maynooth , Kildare Sept
2024 – Nov 2024

- Supported first-year students in mastering Java programming, focusing on foundational concepts and object-oriented programming.
- Broke down complex problems into manageable steps, teaching students a structured approach to writing and organizing code to solve practical problems.
- Collaborated with other tutors to continually improve tutoring approaches, focusing on consistent and effective support for students' learning needs.

Achivements

Ranked Third Highest in course for first year.
Maynooth University Hackathon December 2024 : 1st
Maynooth University Hackathon May 2023 : 5th

Appendix

Third year modules

Computation and Complexity
Computer Networks
Programming Languages and Compilers
Software Design
Software Verification

Second year modules

Databases	93%
Algorithms & Data Structures 1	93%
Algorithms & Data Structures 2	97%
Computer Architecture	96%
Web Information Processing	97%
Operating Sys: Communications & Concurrency	91%
Software Testing	71%
Into User Experience (UX), User Interface (UI)	74%
Software Engineering & Software Process	91%
Theory of Computation	69%
Calculus 3 (S)	78%
Introduction to Statistics (S)	91%

First year modules

Introduction to Computer Science I	90%
Introduction to Computer Science II	100%
Computer Systems I	88%
Computer Systems II	92%
Mechanics & Special Relativity	90%
Mechanics & Modern Physics	71%
Differential Calculus	83%
Integral Calculus	96%
Linear Algebra 1 (S)	84%