

Dara Newsome

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Education

University of Limerick: Sep 2022 - Jun 2026
Combined BSc/MSc in Immersive Software Engineering

Mercy Mounthawk Secondary School: Sep 2016 - Jun 2022
Leaving Certificate
589/625 Points [**Computer Science (H1), Maths (H2), Physics (H2), Spanish (H1), English (H2), History (H1)**]

Relevant Experience

Department of Justice – Dublin, Ireland Jan 2025 - May 2025
Software Engineer

- Built an AI-powered teaching assistant that speaks and teaches in the style of real lecturers using large language model fine-tuning.
- Created a full-stack web app for the assistant that enabled educational dialogue through combining fine-tuned LLMs with contextual retrieval from lecture slides and online sources.

Becton, Dickinson and Company – Limerick, Ireland Jun 2024 - Aug 2024
Software Engineer

- Spearheaded the creation of a modern internal developer portal using React, Vite, and Tailwind CSS, enhancing UI and performance
- Led implementation of key features like upvote/downvote board for feature requests and interactive Grafana dashboard integration, increasing user engagement
- Optimized API performance by reducing calls and utilizing session storage, improving response times and efficiency

Second Chapter – Limerick, Ireland Feb 2023 - Jun 2024
Co-Founder

- Developed a mobile app using Flutter for textbook trading within schools, allowing students to buy, sell, and trade books easily
- Built an asset management platform for schools to track, manage, and assign textbooks to students, streamlining resource management
- Accepted into the NDRC pre-accelerator program, gaining support and mentorship to further develop and scale the business

KX – Dublin, Ireland Sep 2023 - Dec 2023
Software Engineer

- Developed a performance testing benchmark application, that evaluated the company's vector database product against competitors
- Gained experience scripting and developing applications using the Ubuntu OS and virtual machines
- Designed web-based documentation using Jupyter Notebooks and Markdown

Mastercard – Dublin, Ireland Jun 2023 - Aug 2023
Software Engineer

- Developed interactive API based applications using Python, FastAPI and React
- Adhered to coding standards, updated documentation, and engaged in peer code reviews
- Performed and communicated effectively as part of a multinational team engaging in agile methodologies

Script – Dublin, Ireland Jul 2021 - Jul 2022
Co-Founder

- Developed the Script Web Application MVP, including front-end, back-end and visual design

- Awarded 10,000 Euro in preliminary funding from Tagent Incubator, Trinity College Dublin
- Gained experience pitching in front of large groups and working remotely

Specs – Kerry, Ireland
Co-Founder

Mar 2020 – Jan 2022

- Designed multiple functioning pairs of Specs Smart Glasses for dementia patients, including software development, physical design, and manufacturing
- Created video content to educate clients through the demonstration of the features of Specs
- Represented Ireland and SciFest at the International Science and Engineering Fair 2021 and Hong Kong GTYSB 2021
- Won multiple BT Young Scientist Awards, including, Overall Runner-up 2022

Patch – Dublin, Ireland
Participant

Jul 2021

- Developed presentation skills through workshops delivered by industry leaders from multinational companies
- Gained experience in adapting quickly to new teams and environments
- Dealt with completing time-intensive group project work under strict deadlines

Technical Skills

Programming Languages: Python, Java, SQL (MySQL, SQLite), Dart, Shell Scripting, C++

Web Development: React, Vue JS, HTML, CSS, JavaScript, Django, Markdown, PHP, Flutter, Vercel, Tailwind CSS

3D Modeling/ Printing: SolidWorks, Fusion360, Creality CR-10V3

OS Experience: Ubuntu, Mac OS, Raspbian, Windows 10 and 11

Computer Hardware: Arduino, Raspberry Pi (4,3, ZeroW), PC Assembly, RP2040, ESP8266

Image and Video Editing/Production: DaVinci Resolve, GIMP

Projects

Goblin Clothing – Limerick, Ireland

Jun 2024

- Led the development of an eCommerce site called 'Goblin Clothing' using React, Tailwind CSS, Node.js, and MongoDB for a smooth user experience
- Integrated Stripe for seamless payment processing and deployed the site on AWS Elastic Beanstalk for scalability
- Collaborated with manufacturers to produce and sell products to classmates and university peers, enhancing business and operational skills

Synergia – Limerick, Ireland

Mar 2024

- Developed a motion-sensing device that tracked activity patterns in a room, connected to AWS Timestream and Lambda for data analysis
- Displayed data via Grafana dashboards embedded on a user dashboard hosted on AWS Amplify, showing ideal heating times for maximum cost-saving and environmental efficiency

Streetwise – Limerick, Ireland

Jan 2024

- Developed prototype application – Streetwise - to display crime statistics via a heatmap overlay on city maps, helping users avoid dangerous areas
- Conceptualized the use of generative AI to provide users with safer, real-time alternative routes based on crime data
- Won 1st prize at the GenAI for Good competition at Trinity College Dublin, securing €1000 for the project

Interests

Badminton, Film and TV, Music, Politics, Reading, Travel, Spanish