

Lochlann O'Neill

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As a recent First-Class Honours graduate in Software Development from Munster Technological University, I am a highly motivated and passionate software developer with a strong foundation in cutting-edge technologies. Continuously expanding my development expertise during my personal time.

Work Experience

Graduate Network Infrastructure Management and Deployment

Aug. 2024 – Present

Vodafone - Dublin, Ireland

- Conducting detailed audits of existing asset registers to ensure data accuracy, maintaining communication with system owners regarding decommission status and asset lifecycle updates.
- Currently migrating comprehensive Data Center node data from Excel to a SaaS DCIM tool, improving real-time data insights and operational efficiency.
- Actively collaborating with the App Test Automation team on a voluntary stretch project to develop Selenium-based web automation tests, contributing to enhanced testing processes and application reliability.

Electronic and Software Co-Op

Mar. 2021 – Sep 2021

Boston Scientific - Clonmel, Ireland

- Transferred factory system data into SharePoint, streamlining workflows and enabling the initiation of structured code reviews.
- Conducted thorough reviews of in-house software code to ensure compliance with predefined specifications, collaborating closely with external developers to uphold software quality standards.

Education

BSc (Honours) Software Development

2023

Munster Technological University - Cork, Ireland

- Grade: First-Class Honours
- Societies: Airsoft, Athletics, Gaming, Programming, Skateboarding

Skills & Interests

- **Languages:** Java, Python, C, C#, HTML/CSS, Javascript, SQL, NoSQL
- **Frameworks / Tools:** React.js, Node.js, MySQL, MongoDB, Git, AWS EC2, AWS S3, AWS DynamoDB, Docker, Kubernetes
- **Interests:** Hiking, History, Programming, Gaming, Running, Skateboarding, Weight Lifting

Recent Projects

Cloud Automation (90%) - MTU

2025

[GitHub](#)

Summary: Python, AWS, Boto3, EC2, EBS, S3, CloudWatch, Ansible

- Automated cloud infrastructure tasks using AWS services and Python (Boto3).
- Managed EC2 instances, EBS volumes, and S3 storage.
- Displayed performance metrics and set alarms for EC2 instances using CloudWatch, triggering actions like stopping an instance when thresholds are exceeded.

E-Commerce Website - Independent Learning

2024

[GitHub](#) | [Website](#)

Summary: React.js, Express.js, Node.js, MongoDB

- Built an intuitive and user-friendly frontend using React, ensuring adherence to UX design principles.
- Developed robust APIs with Express.js, enabling seamless communication between the frontend and backend.

- Integrated MongoDB for scalable database management and utilized Azure Blob Storage for handling multimedia assets.
- Deployed the application on Cloudflare for enhanced performance, reliability, and global reach, paired with a custom domain hosted on GoDaddy.

Final Year Project (83%) - MTU

2023

[GitHub](#) | [YouTube](#) | [Report](#)

Summary: C#, Unity, Blender, Photoshop, Sony Vegas, Overleaf

- Created a functional and customizable 3D game template, showcasing advanced game development techniques.
- Authored a comprehensive 35,000-word report detailing the project lifecycle, including design, development, and testing phases.
- Presented the project through an engaging in-person demonstration, supported by a visually appealing poster, a professional feature video, and an interactive playable demo.

OS Engineering XV6 Qemu (95%) - MTU

2023

[GitHub](#)

Summary: C, xv6, Qemu, System calls, Interrupts, FUSE, GlusterFS

- Extended xv6 functionality by implementing custom system calls (ps, trace, find, etc), improving OS usability and debugging capabilities.
- Upgraded the xv6 file system to support larger files, increasing its practicality for more complex use cases.
- Explored and implemented interrupt-driven techniques in I/O scheduling and investigated the integration of FUSE and GlusterFS for advanced file system management.

Big Data Analytics (100%) - MTU

2023

[GitHub](#)

Summary: Python, PySpark, Apache Spark, Spark Structured Streaming

- Formulated SparkSQL queries to compute various statistics and glean insights from the provided dataset.
- Implemented Spark Structured Streaming to perform real-time data analytics on live-streamed input.

Microservice Docker/Kubernetes (77%) - MTU

2023

[GitHub](#) | [YouTube](#)

Summary: Python, Docker, Kubernetes, gRPC, Redis, RabbitMQ, Prometheus

- Designed and implemented a microservice architecture using Python and gRPC for seamless inter-service communication, with RabbitMQ managing streaming and message queues.
- Migrated the system to a lightweight K3S Kubernetes cluster and developed a robust scaling strategy to handle increased load.
- Conducted comprehensive functional and non-functional testing to ensure reliability and scalability.
- Integrated Prometheus for monitoring, optimizing resource allocation.

SpringBoot Enrollment System (93%) - MTU

2022

[GitHub](#)

Summary: Java, REST, Spring/SpringBoot, Maven, H2, JPA, JSON, Postman, Lombok, HATEOAS, MockMVC, SLF4J

- Built and deployed a RESTful service with H2 embedded database, managing resources like offices and students efficiently.
- Implemented SLF4J for detailed logging, enhancing system monitoring and debugging.
- Conducted rigorous unit testing using MockMVC, ensuring high reliability and functionality under diverse scenarios.
- Integrated role-based authentication to restrict resource access and secure sensitive data, ensuring compliance with data privacy requirements.

Portfolio Website - Independent Learning

2022

[GitHub](#) | [Website](#)

Summary: HTML/CSS, Javascript, Bootstrap, UX design, Cloudflare

- Developed an online portfolio of development projects, incorporating responsive design and interactive features to enhance user experience.