Lewis McGrogan

Final-Year MEng Computer Science Student — Queen's University Belfast

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Profile

Final-year MEng Computer Science student with a strong academic record, specialising in applied machine learning, distributed systems, and software engineering. Experienced in building reproducible ML pipelines and full-stack web applications. Seeking graduate roles in software engineering, backend, or applied ML.

Work Experience

Web Developer — Client Project   **2026**

The Belfast School of Speech & Drama

- Designed and built a production website using Next.js and TypeScript for a local performing arts school
- Implemented an online booking system with internal functionality to view and manage bookings
- Currently working directly with the client to gather requirements and iteratively refine design and content
- Deployed and maintaining the live site, ensuring responsiveness and usability across devices

Final-Year Research Project — Knowledge Distillation for ECG Classification

- Developed an end-to-end ECG classification pipeline using the PTB-XL dataset (21,799 recordings)
- Implemented CNN teacher–student models with response-based knowledge distillation
- Designed controlled experiments evaluating accuracy–efficiency trade-offs
- Achieved preliminary Macro-F1 ≈ 0.63; ongoing optimisation of teacher and student models

Selected Technical Projects

Distributed Chat System (Java)

- Designed and implemented a multi-client chat system using Java sockets and concurrency primitives

Facial Recognition Pipeline (Machine Learning)

- Built a classical facial recognition pipeline using HOG, LBP, and Gabor features with SVM and KNN classifiers

Full-Stack Web Applications

- Developed React and TypeScript applications with RESTful backend integration in a team-based project

Technical Skills

Languages: Java, Python, TypeScript, MATLAB
Machine Learning: PyTorch, CNNs, knowledge distillation, experimental evaluation
Software Engineering: Object-oriented design, concurrency, distributed systems
Web: React, Next.js, HTML, CSS, REST APIs
Tools: Git, GitHub, SLURM, Vite

Education

Queen's University Belfast — MEng Computer Science   *Sep 2022 – May 2026*
Final-Year Average: 81% | Expected classification: First-Class Honours / 2:1

Our Lady & St. Patrick's College, Knock   *Sep 2015 – Jun 2022*
A-Levels: AAB | GCSEs: 10 A Grades, 1 A*