

CONTACT

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UK/Irish Citizen

<https://linktr.ee/danmackle>  
(Contains GitHub, MyFuture, Indeed)

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TECHNICAL SKILLS

**Coding Languages (Most Self-Taught):**  
Java, MySQL, SQLServer, Oracle, Python, C#, C++, TypeScript, XML, WPF, HTML, CSS, BASIC, QBASIC, ARM and ARMLite.

**Technical Software:** Microsoft Visual Studio, WinForms, Microsoft Visual Studio Code, Eclipse, Notepad++, Replit, Pycharm, PHPMyAdmin.

**Microsoft Office Master** in Word and Excel, Microsoft Office Specialist in Word, Excel and PowerPoint.

Very capable in UML, Systems Timetabling, and the Software Development Lifecycle. A\* Level in AGILE project management and 1<sup>st</sup> level in personal entrepreneurship.

UNIVERSITY EDUCATION

**Master of Engineering:** Computer Science incl. Professional Experience

**Queen's University Belfast** - Belfast  
09/2023 - 06/2028 (Current)  
On track for a predicted degree classification of 1st.  
(To-Date Average of 83%)

- Computer Science Challenges (71%)
- Intro. to Computer Architecture (90%)
- Introduction to Cyber Security (88%)
- Object Orientated Programming (85%)
- Fund. of Maths for Computing (82%)
- Databases (79%)
- Systems Security and Cryptography (TBA)
- Software Engineering and Systems (TBA)
- Data Structures and Algorithms (TBA)
- Theory of Computation (TBA)
- Professional & Transfer Skills (TBA)

Daniel Mackle

PROFESSIONAL SUMMARY & CORE SKILLS

- Enthusiastic academic, who has overcome many difficult yet rewarding optional challenges including the extremely competitive and demanding Computer Science Challenges module, alongside tricky personal projects.
- Leader of the winning group for the extracurricular Queen's University Belfast Sustainability Hackathon 2024, as of the 17<sup>th</sup> of October.
- A self-driven and relentless learner, especially on my preferred fields of Cyber Security, Software Development, Generative AI and Data Science.
- Highly qualified communicator, speaker and collaborator. Capable and ready to build lifelong working relationships in the business environment.
- Passionate and committed public speaker with the NI Cyber Security Centre as a CyberFirst Ambassador and as a ChildNet Digital Leader, giving talks to my younger peers about the state of the IT industry. Through this, I hope to inspire and leave a lasting impact on the future generation.

WORK HISTORY

**Machine Operator** 05/2024 - 09/2024  
**Beverage Plastics** - Lurgan, Co. Armagh

- For over 4 months, I worked a full-time, 12 day/night shift factory job, in a local bottle-blowing factory. This shows my Integrity and Dedication.
- Effectively operate heavy machinery, which included identifying, planning and solving the plethora of errors the large machines may experience, portraying my skills in Troubleshooting, Adaptability and Reliability.

**Allstate Insight Programme** 04/2024 - 04/2024  
**Allstate NI** - Belfast, Co. Antrim.

- Learned first-hand about the company's internal guidelines and techniques on the topics of: Software Development, AI Development, Cyber Security, Data Science and Software Testing.
- Collaborated in groups to identify and plan solutions to relevant scenarios and problems affecting the Software Development and Cyber Security industries. In this, I developed my awareness and communication skills.

**Kainos CodeCamp** 06/2023 - 06/2023  
**Kainos** - Belfast, Co. Antrim.

- Collaborated in large groups of 10-15 developers to develop fun solutions to real-world issues, using a new coding language that I had not at that point used before, Typescript. I had to quickly adapt to this environment.
- Gained experience in using the web-based IDE Replit, alongside learning how Kainos manages and builds on huge repositories with Git.

**Almac Diagnostic Services Work Experience** 06/2023 - 06/2023  
**Almac Group** - Craigavon, Co. Armagh

- Shadowed and interviewed developers at work from all stages of the software development life-cycle, gaining tips and guidance from workers. In this, I focused on learning unique practices in a high-speed workplace.
- Gained knowledge on Almac's unique medical software development lifecycle, favouring careful documentation and quality over speed.

## PREVIOUS EDUCATION

**A-Levels/GCSEs**, 09/2023 – 04/2028

**Banbridge Academy** – Banbridge,  
Northern Ireland

- Software Systems Development (A\*)
- Physics (A)
- Biology (A\*)
- French (C) [Additional AS-Level]

(For the above grades, I have achieved the Award of Academic Achievement for A-Levels.)

10 GCSEs including Further Maths (A\*), English Language (B) and Software Systems Development (A\*).

**Grade 8 & Performance Diploma:** Speech and Drama, 09/2013 – 04/2022  
London College of Music Examination

## VOLUNTEERING

- **CyberFirst Ambassador** – Since entering QUB, I have been spending my time representing the university's cybersecurity department. I am giving talks on online safety, cybersecurity tips and tricks, and presentations on open days on the benefits of a Computer Science course, and the current state of the industry.
- **ChildNet Digital Leader** – In my final two years of secondary school, I gave talks and presentations on key skills for younger persons to stay safe online. Including: Cyberbullying, Online Influencers, Fake News and the dangers of explicit content.

## REFEREES

**Academic Reference – Professor John Bustard**

*Personal Tutor/Advisor for Computer Science Challenges*

*Queen's University Belfast*

16A Malone Rd, Belfast BT9 5BN

(+028) 9097 4669

**Personal Reference – Mr. Johnny Hawthorne**

*Relevant Shift Leader, Lead Mechanic Beverage Plastics Ltd.*

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(+028) 3832 2221

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## MAIN ACADEMIC PROJECTS (TOP 3 OUT OF 4)

### Computer Science Challenges Module

*'Parameterised-Vector-Graphic-Faces' – Solo – Earned 70%*

- A Desktop-Controlling Macro program which inputs a .PNG face image and outputs a dataset of images of posed 3D face models, generated via Generative AI. I had to build my skills in these new fields from scratch.
- Includes heavy documentation: How-To Guide, Daily Thoughts & Experience Diary, Blog Post, Testing Plan, Social Media Post and Commented Code. In this, I truly show off my attention to nuance.
- Developed with UI.Vision RPA and DAZ3D.
- Developed in Java, CSS, HTML, JavaScript and an arbitrary sequencing language native to UI.Vision.

### Software Systems Development A-Level (Year 2)

*'SimpsonsDatabaseManager' – Solo – Earned 95%*

- A visual frontend program for use by either employee or customer actors. Exhibits robust total control over a large Database of products, manufacturers, customers and orders. Exhibits many quality of life features for both actors.
- Was developed according to Test-Driven Development practices and under the DSDM Agile Methodology, going through Alpha and Beta Testing Stages. This insight into the development workplace is vital for my career.
- Includes heavy documentation: UML, Entity-Relationship Diagrams, Data Dictionaries and a formal Video Presentation. Shows attention to detail.
- Developed with C#, XML and SQLServer.

### Databases Module

*'MockUniDB' – Solo – Earned 79%*

- A command-line program which robustly and effectively manipulates a large Database of Students, Employers, Jobs etc.
- Includes documentation: UML, Entity-Relationship Diagrams, Data Dictionaries and a formal Video Presentation.
- Developed with Java in Eclipse and My SQL in PHPMyAdmin.

## MAIN PERSONAL PROJECTS (TOP 2 OUT OF 6)

### 'SustainabilityHackathon2024' – Group

*– Collab with Caleb Hair, Leo Chartier, Craig Thompson, Arpit Kumar-Sahoo.*

- Won most Creative Idea in the 2024 QUB Sustainability Hackathon.
- A plan to develop tourism in Belfast via the installation of Projectors with historical iconography around the city centre and popular tourist hotspots.
- Involved use of filtering data from large datasets and creation of interactive maps using dynamic webapps. These were used to sell our point through videos and detailed documentation.
- Developed with Python in PyCharm, and OpenAI's ChatGPT-4o model.

### 'ChristmasBreakPlatformer' – Group

*– Collab with Caleb Hair*

- A self-motivated attempt at extending our knowledge of Java with jgl, a Java wrapper for OpenGL that provides access to OpenGL using the JOGL Java library. Our original plan was to make a game, but this was downsized.
- We learned to wrangle large libraries and extensions to java; through group experimentation, pair programming and reading documentation.
- Developed with Java (jgl, JOGL) in Visual Studio Code.

Thank you very much for your attention, have a nice day!