

# Daniel Mackle

## Year 2 Computer Science Student, Queen's University Belfast

### Contact

3 Cottage Avenue,  
Lurgan, Co. Armagh  
BT67 9NL

(+44) 77526 77524

[danmackle05@gmail.com](mailto:danmackle05@gmail.com)

[danmackle04@qub.ac.uk](mailto:danmackle04@qub.ac.uk)

Allstate NI  
10 Mays Meadow,  
Belfast, Co. Antrim  
BT1 3PH

### Dear Sir or Madam,

Thank you very much for helping me choose Allstate as a potential employer through networking with you in the careers fair in Queen's University Belfast!

I first learned of this amazing opportunity through both in-person events and the QUB MyFuture platform. I am now pursuing this position of Placement Software Engineering Intern in Belfast for 2025. Please find attached my CV.

I am an excelling academic, having achieved a perfect GPA of 4.0 in both my first year of University and my A-Levels. I was the leader of a winning team in the QUB Sustainability Hackathon 2024. I am also highly qualified in communication, with a Grade 8 and additional Diploma in Speech and Drama. I am extremely skilled with both C#, C++ and SQL, shown through academics and frequent personal projects, keeping my skills sharp. I have an extremely developed knowledge of AGILE Methodologies in the real workplace through work experiences and group projects developed under AGILE. I have experience in the low-level architecture of computers, having achieved a 90% in a relevant module. I have also poured many hours into collaboration with friends to complete tricky programming challenges alongside creative and innovative personal projects, either for competitions or for fun and growth.

In the making of this application, I have gained a strong appreciation for Allstate. I am amazed by the scale and influence of the company, revealing Allstate to me as a vital cornerstone, upholding and innovating the Insurance industry. I am steadfast in my belief that, alongside Allstate, I will be able to build my career while developing vital skills and relevant business knowledge. I would adore to develop solutions to real problems, involved in a company which truly affects the lives of many people all over the globe. I was also happy to learn that Allstate NI won an Award for Workplace of the Year 2022.

Thank you very much for taking the time to review my CV.

I hope to meet you again in the next stages of the application process!

Yours faithfully,

Daniel Mackle.

CONTACT

3 Cottage Avenue, Lurgan, Co. Armagh BT67 9NL

+44 77526 77524

danmackle05@gmail.com

UK/Irish Citizen

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

<http://www.linkedin.com/in/danielmackle>

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 Software Development, Cybersecurity, 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.*  
Silverwood Industrial Area, Silverwood Rd,  
Lurgan, Craigavon BT66 6LN  
(+028) 3832 2221  
2 | Daniel Mackle 40407187

## 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!