Daniel Mackle

Year 2 Computer Science Student, Queen's University Belfast

Contact

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Entry Level Recruiting Team
CME Group
Millennium House,
5th Floor
17-25 Great Victoria Street,
Belfast, Co. Antrim
BT2 7AQ

Dear Sir or Madam,

Thank you very much for helping me choose CMEGroup as a potential employer through your Entry Level Recruitng Team's lovely events across Queen's University Belfast!

I first learned of this amazing opprotunity through both in-person events and the QUB MyFuture platform. I am now pursuing this position of Placement Software Engineer in Belfast for 2025. Please find attatched 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 Java 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, alongisde knowldege of C++ and ARM/ARMLITE, showing my proficiency to manipulate system resources to optimise and control software.

In the making of this application, I have gained a strong appreciation for CME Group's world-renowned IT development sector, being humbled by their amazing achievement, such as their partnership with Google Cloud and their vital work in naming CME Group the Clearing House of the Year. Their worldwide influence through platforms like CME Direct and apps like SPAN and ComFin have inspired me with the hope that, with CME Group, I can truly leave a positive impact on the FinTech field, and the greater working world.

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

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UK/Irish Citizen

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

http://www.linkedin.com/in/daniel mackle

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 1st 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)*

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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 17th 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.

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

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!