Tom Litherland

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PROFILE

I am a Masters' Graduate with a First-Class degree in Computer Science from a top 10 UK University, looking for a Software Development position at an accomplished organisation to gain skills and experience in a professional and engaging environment. I am a self-motivated and independent but also amiable worker, with strong skills in Problem Solving, Analytical Thinking and Communication. I am a strong and valued team worker as well, with experience working in teams both in-person and remotely. I have a strong technical skillset and have significant experience programming in Java, Python, C++ and JavaScript/TypeScript, with additional experience in C, C# and React, but I will always be looking to expand and enhance these abilities.

EXPERIENCE:

Microsoft Research: MSci Industrial Placement   Jan 2023 – Mar 2023

- Collaborated with the Microsoft Research Jacdac team to develop a new LCD Screen component, developing the software aspect of the project.
- Created an interactive 'twin' of the screen using Typescript and React, enabling real-time rendering actions in a browser window to mirror physical interactions.
- Played a key role in advancing the functionality and user experience of the component through innovative software development.

Lancaster University School of Computing and Communications Teaching Assistant   Oct 2022 – Jun 2023

- Provided hands-on support to first and second-year Computer Science students in lab sessions, assisting with coursework and lab work under the guidance of lecturers.
- Selected for the position based on outstanding academic performance.
- Offered expertise in Concurrency in Java, Beginner and Advanced C Programming, Operating Systems in C, and general programming and debugging assistance.

Executive Member of the Lancaster University Comedy Institute: Mar 2022 – Mar 2023

- Part of a team of seven.
- Hosted engaging and enjoyable weekly meetings for 30 members.
- Managed the society YouTube channel, ensuring high-quality recordings, editing, and timely event uploads.
- Successfully organized and performed in recurring comedy gigs, including a notable show at a community theatre space.

EDUCATION & QUALIFICATIONS

Lancaster University - MSci Hons Computer Science (with Industrial Experience):   Oct 2019 – Jul 2023

Grade: **1st**.
As part of the course, I have studied:
- Advanced Programming in Java, Python and C/C++.
- Full Stack Client-Server Networking in Java using the Java RMI and REST.
- Group Game Development using Git and Java over a 24-week period carried out online.
- Artificial Intelligence and Machine Learning in both Python and MATLAB, including image classification and dataset analysis.
- Systems development in C/C++, Java and Typescript.
- Third Year Dissertation on the use of Machine Learning/AI within the field of Automated Program Repair, for which I attained a First.
- Microcontroller programming using MicroPython, Typescript and C++ and wiring using breadboards, as part of a group HCI research project.
- Fourth year included a 10-week Industrial Placement at Microsoft and a dissertation on Indoor Localisation using C++ and BBC Micro:Bits.

Chancellor's School - A Levels & GCSEs: Sep 2012 – Jul 2019

A-Levels: Maths (**A**), History (**A**), Computer Science (**B**)
GCSEs: All 10 A*-B, including a 7 in Maths and English Language and an A in Computer Science.

DIGITAL SKILLS

- Wide-ranged developer, with experience programming in Object-Oriented, Scripted and Functional languages.
- Languages:
    - Python – Highly experienced, 7 Years, mostly self-taught.
    - Java – Highly experienced, 4 Years.
    - JavaScript/Typescript – Highly experienced, 3 Years, self-taught.
    - C – Experienced, 4 Years.
    - C++ - Experienced, 3 Years, self-taught.
    - Web Development (HTML, CSS, SQL, PHP, JS) – Experienced, 4 Years, self-taught.
    - React – Some experience, 1 year, self-taught.
    - Experienced in SQL, 5 years.
- AI and Machine Learning experience in both Python and MATLAB.
- Fully experienced with the Microsoft Office Suite.
- Experienced using IDEs Visual Studio, Visual Studio Code and Eclipse.
- Experience working remotely, including collaboratively, using Microsoft Teams and email communication.
- Fully experienced with GIT and GitHub.
- Experience developing on Windows and Linux, and some experience using Docker.
- Quick at learning how to use new software, tools, infrastructures and languages.
- Always looking to expand and enhance these skills wherever possible.

KEY SKILLS

- Dependable and Motivated Team Worker, demonstrated in a Sixth Form charity fundraiser which raised over £2000 for homelessness charity Crisis, as well as time served on a Society Executive Committee at University.

- Excellent time organisation skills, gained from balancing an intense university course with society requirements without overloading myself.

- Excellent problem-solving skills, refined from years of programming both academically and for fun.

- Critical Thinking and Analysis skills, developed through the studying of History at both A-Level and University levels.

- Excellent written and spoken English skills. I have also been learning German for over 2 years.

- Clean Full Driving Licence with Car, with 4 years driving experience.

INTERESTS

I have always had an interest in game development, which led to my further interest in software development and programming. It is these interests that have led to my career in Computer Science. Over the last year, I have been developing a 2D Game Engine in C++, which I aim to use to build games of my own design.

I also have a long-standing interest in world events and current affairs, which I have explored through my optional study of history in my first year of university.

I also have a passion for comedy, having performed both stand-up and improvised comedy at various events for the Lancaster University Comedy Institute, as well as serving on the executive committee of the society.

My other interests include amateur photography, video production/editing and hiking.