

THOMAS MORENO COOPER

Personal website & portfolio: <https://TMoCo.github.io>

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Personal Profile

I am a British-French computer science master's graduate with a specialised skillset looking for a graduate software engineering position in the games industry. From a broad academic background with strong maths skills, I have thrived in an intensive course designed to meet the industry's needs and am always exploring new ways to improve myself as a software engineer. Through personal and academic projects as well as previous employment and volunteering, I have experience working in teams and independently, consistently achieving excellent results. Eager to learn, I hope to work in a dynamic team and become an innovative software engineer, pursue my passion for games and game technologies, and develop cutting edge applications and services in an exciting industry.

Skills

- C++, C, C#, Python, GLSL, CMake, JS, Html/Css, MATLAB, SQL
- Vulkan, OpenGL, Git, ImGui, Qt, OpenMP, OpenCL, React, SIMD
- Visual Studio, Unity, Blender
- Linux/Windows development
- Game Engines, 3D Computer Graphics, Physics and Simulations, Mathematics for Game Engines, Shaders, User Interfaces, Web Development
- English (native speaker), French (native speaker), German (B1 - advanced)

Education

- **Computer Science with High Performance Graphics and Games Engineering (MEng, BSc) - First** **2021**
School of computing, University of Leeds, UK
- **Scientific baccalaureate with international option, specialised in mathematics - 16/20 (A*)** **2017**
Lycée International Georges Duby, Aix-en-Provence, France

Projects

- **Raven Game Engine** - For my master's project, I led a 5-person team in building a custom C++ 3D game engine. I put software engineering principles like version control to good use and ensured my team had excellent communication throughout the project. As a result, my team won [first prize](#) in the game technology category at the 2021 games republic student showcase.
- **Protein Visualiser in Unity** - For my undergraduate third-year individual project (76%), I explored the application of game technologies to aid research in biochemistry and created a protein visualiser with the Unity game engine.
- **Can't Wait** - A physics-based game made in Unity released for the 49th Ludum Dare game jam. Players must navigate an unsteady waiter through a restaurant and avoid contact with the environment.
- **C++ applications using Vulkan API** - I have built a GLTF model viewer with deferred rendering, physically based shading, shadow mapping and a skybox. I have also implemented different terrain rendering techniques using acceleration data structures or using shaders to generate vertex data on the GPU.

In other C++ projects I have implemented algorithms and data structures from the games industry, such as animations using inverse kinematics, physical simulations for cloth and fluids, and mesh subdivision/simplification and deformation operations. All my projects can be found on my GitHub: <https://github.com/TMoCo>.

Employment & Volunteering

- **Front-end Web developer** - While managing my third-year individual project, I worked with an international team of academics to produce two websites to showcase their projects. I learnt to use JavaScript, design user interfaces, discuss design ideas, present deliverables, use timesheets and log my activity. Links to these websites can be found in my portfolio. **2020**
- **User Interfaces Module technical assistant (C++)** - I led regular drop-in sessions for students on Teams, answering students' questions, giving UI design tips, and sharing my expertise. **2020**
- **Volunteer French teacher for the School of Languages** - I led a class of undergraduates and university staff, teaching the basics of the French language and introducing them to French culture by organising debates, speaking exercises and giving video presentations. **2019**
- **Student ambassador for the School of Computing** **2018 – 2019**

Reference

Dr. He Wang, School of Computing, University of Leeds: H.E.Wang@leeds.ac.uk