THOMAS MORENO COOPER

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Personal Profile

I am a British-French computer science master's graduate with a uniquely specialised skillset looking for an entry-level programming role 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. I am always exploring new techniques and researching ways to improve my applications and myself as a software engineer. By joining the games industry, I want to further my knowledge of the technologies that have brought me so much joy, learning from experts, and contributing to the creation of amazing game experiences.

Skills

- C++/C, C#, Python, GLSL, CMake, JS/Html/Css, MATLAB, Git
- Vulkan, OpenGL, ImGui, Qt
- Visual Studio, Unity, Blender
- Windows/Linux development
- Game engines, 3D computer graphics, physics and simulations, mathematics for graphics
- 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 – A* **2017**
Lycée International Georges Duby, Aix-en-Provence, France

Projects

● **Raven Game Engine** (academic) – For my master's project, I led a 5-person team in building a C++ 3D game engine from scratch, which won first prize in the game technology category at the 2021 games republic student showcase.

● **Protein Visualiser** (academic) – For my undergraduate thesis, I explored the application of game technologies to aid research in biochemistry, creating a protein visualiser using the Unity game engine.

● **Can't Wait** (personal) – Can't Wait is 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.

● **Vulkan deferred renderer** (personal) **–** Extending a piece of 4th year coursework, I built an application to view 3D models with physically based deferred rendering, shadow mapping and a skybox using the Vulkan API.

● **Coursework** (academic) **–** During my 4th year, I implemented mesh deformation, forward/inverse kinematics, particle cloth and fluid simulations, a ray tracer, accelerated mesh data structures with simplification/subdivision, terrain rendering, deferred rendering. I am always researching these projects in my spare time, trying to optimize them where possible and exploring alternative implementations.

● All my projects can be found on my GitHub: https://github.com/TMoCo.

Employment & Volunteering

Front-end Web developer **2020**
Working with architecture and humanities academics, I produced two websites to showcase their projects. I learnt to write JS applications, design websites, discuss design ideas, present deliverables, keep timesheets and log my activity, all the while working on my undergraduate thesis.

Module technical assistant (C++) **2020**
As an assistant for the User Interface module, I lead regular drop-in sessions for 2nd year students on Teams answering students' questions, giving UI design tips, and sharing my C++ knowledge.

Student ambassador for the School of Computing **2018 – 2019**

Volunteering as a French teacher for the university **2018**
I lead a class of 20 students, ranging from other undergraduates to university staff, teaching the basics of the French language and introducing them to French culture by organising debates, speaking exercises and video presentations.

Reference

Dr. He Wang, Visualisation and Computer Graphics group, School of Computing, University of Leeds
H.E.Wang@leeds.ac.uk