

Oliver Steptoe

Senior Lead Developer

C/C++ & Lua

5 Years in Industry

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Profile

I'm a professional game developer with a love of C/C++ & Lua, currently looking for a change of pace. With 5 years working for one of the industry's top porting companies I've worked on a variety of platforms and gained plenty of insight into what makes AAA games tick.

I am capable of programming in a variety of languages including C/C++ & Lua for multiple platforms (Nintendo Switch, iOS, Android, Desktop) and have been developing games for 10+ years (5 in industry).

As a Senior Lead Developer at Feral Interactive, I now oversee the development of our Nintendo Switch titles. Due to the nature of Feral's software my work involves working on a very large codebase shared by many AAA titles and a variety of platforms simultaneously.

Experience

SENIOR LEAD DEVELOPER, FERAL INTERACTIVE – 2021 - PRESENT

As Senior Lead Developer for Feral's Nintendo Switch ports, I am tasked with overseeing the development of our Nintendo Switch titles while also working on the games themselves. Managing multiple ongoing projects has required careful time management and communication with the development teams and other departments to deliver new game titles & patches for existing titles.

I regularly assist junior developers, mentoring them as necessary and am involved in Feral's recruitment process, organising programming tests and assisting in interviews with applicants.

DEVELOPER, FERAL INTERACTIVE – 2017-2021

As a developer I have worked on multiple top selling titles including 'Rome: Total War' (iOS & Android), 'Company of Heroes' (iOS & Android) and took the position of lead developer during my work on Company of Heroes seeing the project from initial porting to two DLC releases.

I have tackled many complex technical tasks involving Graphics, UI, Gameplay, AI & low level platform optimisations.

GRAPHICS INTERN, ARM – JUNE 2016 - AUGUST 2016

Developed benchmarks for arm's Mali GPU hardware as part of their 'Content Analysis Team' investigating vertex throughput. I worked using C++ and OpenGL.

Education

UNIVERSITY OF SOUTHAMPTON, COMPUTER SCIENCE, 2014 - 2017

Achieved a 2:1 BSc Computer Science. Modules taken included: Programming, Algorithmics, Cloud Development & Game Development.

For my dissertation I developed and analysed the performance of a multi-threaded game engine written in C++.

ROYAL HOSPITAL SCHOOL, A-LEVELS, 2012-2014

Mathematics (**A**), Further Mathematics (**A**) & Physics (**B**)

Skills

Over the years I have worked with various languages, libraries and frameworks in one form or another and as a result can quickly get up to speed with new development environments, systems and development teams.

In my professional career I have developed excellent C++ programming skills and have lots of experience using debuggers and profiling to solve complex problems and identify hard to fix bugs. I have experience developing multithreaded systems in order to improve execution time of otherwise slow processes.

Though self taught, I am also an experienced Lua programmer with a deep understanding of metatables, coroutines and the Lua interpreter itself.

I also have experience with the following: OpenGL, Metal, JavaScript, Bash, Linux, Microcontrollers, CPU Organisation, Assembly & Java.

Projects

Much of the following information is also available in my portfolio at <https://oliversteptoe.co.uk>.

COMPANY OF HEROES (C++) - IOS & ANDROID

As lead developer I was tasked with ensuring communication between team members was maintained and code was written to a high standard throughout the project.

Alongside numerous bug fixes, highlights of my contributions include:

- DXT to ASTC texture conversion for mobile platforms in the game's original packed texture format that was never intended to support this.
- 'Control Wheel' control scheme implementation.
- Disk access optimisations to greatly improve load times.
- Multithreaded game save routine.
- Large portions of the new mobile UI & associated game logic.

ROME: TOTAL WAR (C++) - IOS & ANDROID

Alongside numerous bug fixes, highlights of my contributions include:

- Campaign map graphical performance optimisations.
- Dynamic framerate management for battery saving.
- Extensive improvements to the the original UI system in order to better support mobile devices, including those with notches.
- Large portions of the new mobile UI & associated game logic.

WEBREPO (LUA)

My love of Lua developed while using the iOS app 'Codea', which allows users to program and execute applications written in Lua on the device itself. I am an active member of the Codea community and regularly contribute to discussions relating to Lua.

After becoming a member of the Codea community, I identified a lack of discoverability of many of the community's shared projects due to them being buried in the forum's history, so I set about to fix that.

Enter WebRepo. WebRepo provides a clean user interface allowing users to download projects from the Codea community with a single tap! New projects can even be submitted by other members of the community at which point admin approval is required to make the project widely available. Please see my portfolio at <https://oliversteptoe.co.uk> for more details and links to source code.

CODEA+ (LUA)

Codea+ is a utility library written in pure Lua. It provides many useful features that are absent in the Codea runtime including: threads, promises, a debugger, documentation generators and many others. This project demonstrates my depth of knowledge where Lua is concerned. Please see oliversteptoe.co.uk for more details and links to source code.