Oliver Fallows

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Date of Birth: 28th January 1985   *Phone:* 07976 040858

Professional Summary

Software engineer with 7 years experience in the games industry. Specialising in optimisation, asset pipeline and toolchains, system architecture and memory analysis.

Employment

Principal Programmer   *Crytek*   June 2009 – now

- Technical lead of a small team on an unannounced next-gen project.
- Credited on 5 titles – Crysis 1 (Console), Crysis 2, Crysis 3, Ryse and Warface 360.
- Developed tool for deep analysis of memory behaviour, pivotal in understanding and optimising the Crysis games for shipping on console.
- Refactored memory management, including development of a space and time efficient small object allocator, and defragmenting allocator for GPU resources.
- Moved sound system to command driven worker thread.
- Ported terrain mesh generation to asynchronous jobs, pipelined with occlusion culler to minimise main thread coordination.
- Developed pipeline for automatic analysis of asset dependencies to optimise loading and streaming of open world.
- Optimised file streaming for decreased latency by improving request ordering, overlapping IO and processing, optimising file formats and reducing runtime work.
- Key player in resolving memory corruption and race condition bugs.
- Coordinated the integration of multiple features and optimisations into Warface 360, crucial to achieving the target framerate on that platform.

Tools Developer   *Eurocom*   December 2008 – June 2009

- Integrated 3rd party lighting solution, Beast, into existing pipeline and editor.
- Designed and implemented a job system for Beast to enable bakes to happen across multiple machines over the network – drastically reducing overall bake times.

Tools Developer   *Free Radical Design*   August 2007 – December 2008

- Developed a terrain plugin for editing of height and blend maps in the editor.
- Developed lighting plugin to configure lights, bake lightmaps in real-time (GPU shadow mapped and raytraced), and batch geometry into groups for efficient rendering.
- Implemented architecture for parallel processing of tasks in world editor.
- Developed data binding architecture to create UI for arbitrary data sources on-the-fly.

Web Developer   *SchoolsOnTheNet.com*   June 2004 to August 2007

- Developed content management software utilising AJAX and dynamic pages.
- Implemented a PHP Object Relational Mapping layer to abstract the database.

Education

Lincoln University   BSc Games Computing (Software Development) – 1st Class Honours

Computing and Software Development Skills

Languages	C++11, C, C#, x86/64 assembly, PPC assembly, Python, HLSL, GLSL, BASH, PHP, SQL, XML, XHTML, CSS, Javascript, Visual Basic, Ruby, Haskell, Scheme, Prolog
Platforms	Windows, PS4, PS3, Xbox One, Xbox 360, .NET, Linux
Applications	MS Visual Studio, MS Office, Photoshop, 3D Studio MAX
Middleware	CryENGINE, FMOD Ex, Scaleform, MySQL, SQLite, WAF, Bamboo
Source control	Perforce, GIT, Subversion