



CRAIG JEFFREY

C++ Programmer and Game Developer

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Profile

Graduate level programmer and developer looking for a job beginning this summer or later.

- ◆ Quick learner and perfectionist - I find the process of mastering a skill deeply rewarding and pride myself in being competent at what I do.
 - ◆ Open minded, curious and always willing to learn and consider criticism. I am always willing to help others and usually expect the same in return.
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Skills

Languages: Competent: ◆ C++ (4 years, >15 projects)
Basic: ◆ C# ◆ HLSL ◆ MATLAB ◆ Python ◆ HTML/CSS

Dev Tools: Visual Studio, Git/GitHub using [SmartGit](#), Unity, CMake

Libraries/APIs: C++ Standard Library (including C++11), Boost (filesystem), DirectX 11, OpenGL 3.0 (fixed-function), Windows API, XAudio2, WinSock, SFML, Box2D, RapidXML, dear imgui, aubio.

Education

2012 - 2016: University of Abertay Dundee
BSc(Hons) Computer Games Technology *Achieved 2:1*

Honours Project - "Music Information Retrieval for Computer Games"

(2015-2016 ◆ C++ ◆ Windows PC ◆ Open Source->[GitHub](#) | [RhythmMIR Website](#))

Involves using music information retrieval (MIR) techniques for automatic game content generation. I developed "[RhythmMIR](#)", an application which implements a MIR system and a rhythm game for testing the output (using [aubio](#) and many other libraries).

RhythmMIR is free and open source! I am independently continuing development to make RhythmMIR useful for music and rhythm game content creators.

Best module grades include: Network Programming (A+), Procedural Methods (A) and Computer Operating Environments (A). Full list of grades available on my [LinkedIn](#).

Projects

More projects covered in detail on my [website](#).

Group Project - "Galaxea" - Engine Programmer

(2014-2015 ◆ C++ (using Abertay PSVita Framework) ◆ Sony PS Vita)

- ◆ In third year at university I participated in a professional group project working on a 2D game based on a brief by [FuturLab](#) in a team of 8 with 1 other programmer.
 - ◆ As the engine programmer I implemented many aspects of the game including level loading (using Tiled and RapidXML), menus, UI, overall application state machine and tile collision physics (using Box2D).
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Interests

Computer Gaming

I enjoy games that have depth (gameplay mechanics or story) or involve mastering a skill. I tend to play online games as I am competitive. Games I currently play include:osu!, League of Legends and Overwatch.

My interest in games has allowed me to develop a number of skills:

- ◆ I have a strong intuition when it comes to speculating on how code may be structured or implemented due to my understanding of game mechanics.
- ◆ I have developed basic skills in image editing and interface design attained when customizing the user interface of various games I enjoy (e.g., skinning in osu!, modding UI in World of Warcraft).

Computer Hardware and Peripherals

- ◆ I have an interest in computer hardware and have above average knowledge of how computers work physically (thanks to both education and personal interest).
 - ◆ I'm interested in high end peripherals such as mechanical keyboards and headphones. (I own a CM NovaTouch TKL, JVC SZ-2000s and a FiiO E12)
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References available on request.