Joseph Cameron
jf.cameron@gmail.com
jfcameron.github.io

22 Merner Ave, Ottawa ON
K2J4A6
613-617-2475

Summary

- Software developer with an interest in C++, real time applications and build automation.
- Worked previously as a software developer at You.i, building cross-platform video streaming applications for desktop, set-top, smart-TV and mobile devices in C++ (contractor placed at You.i 2017-2018, contracted directly by You.i 2018-2020).
- Graduated with Honors from the Video Game Development program, Algonquin College, Woodroffe Campus, Spring 2015 (3.7 GPA).
- Professional experience with C++, Java and JavaScript.
- Experience with C, GLSL, and HLSL languages.
- Developed several video streaming applications at You.i
- Continue to develop many personal projects. Work from the past year includes:
    - 3D renderer that compiles for Windows, MacOS, Linux (x86 and arm64) and Web Assembly. Uses C++, GLFW, OpenGL. Pull requests to the main branch are automatically built for each platform via Travis-CI, in order to ensure work in one environment does not break another (e.g: Linux + GCC breaking Windows + MSVC). Documentation is automatically generated with Doxygen and pushed to the project's gh-pages branch: https://github.com/jfcameron/gdk-graphics.
    - Audio library for Linux & Windows using OpenAL. Supports vorbis encoded data and PCM. Automated in the same way as the renderer: https://github.com/jfcameron/gdk-audio.
    - System-tray notification program for Linux using C++ and libCURL. Monitors state of ongoing Travis-CI builds, alerting on success or failure: https://github.com/jfcameron/jfc-travis_ci_canary.
    - A synchronized video player app using Node, to watch videos with socially distancing friends online.
    - A multiplayer Flappybird clone that compiles for Windows & Linux, written on top of my graphics and audio libraries.
    - Smaller projects including a program for DOS, compiled using DJGPP (actively maintained GCC port for DOS), and a clock widget in Lua for the X11 window manager "Awesome-WM".
- Previous experience as sole salaried developer at Marketing Breakthroughs, an Ottawa based web design company, working in Javascript and PHP.
- Professional experience using Git, Github, Jira.
- My linkedin profile can be viewed at **https://ca.linkedin.com/in/joseph-cameron**.
- **My work can be viewed on my portfolio at http://jfcameron.github.io/.**

Skills

Strong understanding of:

- C++, C# and Java programming languages.
- Object Oriented design, RAII, the MVC design pattern.
- Agile development, Scrum, Jira, Slack.
- Git, CMake, Doxygen, Github, Gitlab, Travis-CI.
- XCode, Visual Studio, NetBeans IDEs

Experienced with:

- Javascript, Typescript, Node, WebGL, Web Assembly

Familiar with:

- C and Objective-C languages, basic shell scripting

Joseph Cameron
jf.cameron@gmail.com
jfcameron.github.io

22 Merner Ave, Ottawa ON
K2J4A6
613-617-2475

Notable Professional Projects

- Movies Anywhere: Worked primarily on Analytics and GUI. Integrated the analytics library “Conviva” into the project (C89-based API).
- Tou.tv: Wrote the application’s authenticator (oauth2) and contributed to GUI development.
- Filmstruck: Worked on platform expansion to the Tizen smart-tv OS, especially on issues around DRM protected video playback
- Tou.tv: wrote oauth2 based authenticator, analytics and various GUI features.
- DirectTV: client’s authentication and search functionality

Notable Personal Projects

- Games Development Kit - [August 2017 - Present]
    - A collection of C++ libraries each designed to solve some aspect of game development (input handling, 3D rendering, audio playback, resource fetching).
- Games 2D Java - [November 2016 - September 2017]
    - Experimental game engine written in Java. Games can be deployed to either standard JVM or Android platform (used a perl “preprocessor” script to handle API differences). Produced a few demos on top of this engine including a pong game and basic multilingual plane text renderer.
- WebGL engine - [February - September 2015]
    - Used as the lander of jfcameron.github.io. Basic 3D rendering, input handling and rigidbodies.
- Conway’s Game Of Life implemented in a DirectX Compute shader - [July 2015]
    - Interactive game of life simulation. The sim is run on the GPU concurrent to a C# application. Communication from C# to HLSL is squeezed through a texture buffer.
- Voxel renderer in a DirectX Geometry shader - [July 2015]
    - Terrain data is uploaded to the graphics device via a 3D texture, the texture data is then used to generate geometry in a geometry shader.

Education

- Honors graduate of the Game Development program at Algonquin College, Woodroffe campus. (GPA 3.7 / 88% / A Average)

Work Experience

- C++ developer at You.i - [June 2017 - February 2020]
    - Developed the multi platform video streaming applications “Filmstruck”,“Movies Anywhere”, “Tou.tv”, “DirectTV”.
    - Updated and helped to maintain a C++ wrapper for a third party C based analytics library
    - Performed code reviews, participated in scrums, discussions about feature implementations, communicated with clients and team members via Slack and Jira
    - Diagnosed and identified various issues within the existing codebase ensuring product delivery.
- Web developer at Marketing Breakthroughs - [June - November 2015]
    - Wrote plugins for WordPress, Joomla and debugged various platform issues.
    - Projects ranged from interactive microsites, writing or updating store interfaces as well as site maintenance.
    - Developed new functionalities in PHP, JavaScript, CSS, SQL and Visual Basic.

References available upon request