

# Alex Koukoulas

## Software Engineer Student

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**Github Profile:** <http://github.com/AlexKoukoulas2074245k/>

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### Education:

- 2013-2017(In Progress) Software Engineering, BSc (Hons)  
University of Glasgow

### Skills:

- **Programming Languages:** C++(3 years); C(2 years); Java(2 years); Python(2 years); Assembly(1 year); Javascript(1 year)
- **Graphics Programming Techniques:** Phong reflection model; texturing; billboarding; frustum culling; scene graphs; particle systems; model loading & rendering; HLSL & GLSL; bitmap manipulation; 3D Pipeline
- **API and Libraries:** Direct3D 11.0; OpenGL 3.3; STL; Windows API; Box2D; Javax Swing; Django; jQuery
- **Development Tools:** Visual Studio 2013/2015; Unity3D Engine; GIT; SVN; Emacs; Blender;

### Projects:

(Source code and demos available on my website and Github profile)

- **PokeRevo(PC) 2015**  
**Languages:** C++, Java (Direct3D 11.0)  
**Info:** A 3D recreation of an old Gameboy title with custom 3D models and textures. Furthermore a bitmap manipulation tool was developed to translate the original level textures into custom 3D level files.
- **Breakout3D(PC) 2014**  
**Languages:** C++ (Direct3D 11.0)  
**Info:** A 3D Breakout-style game featuring the Phong reflection model and a combinatorial upgrade system.
- **ScrabbleGL(PC) 2013-2014**  
**Languages:** Java (OpenGL 3.3)  
**Info:** A 2D adaptation of the original board game. Includes animations for all game objects, responsive UI and sessions against competent AI.