Alexander Greenstein

Khaos@games.com

https://khaoscomplex.github.io/

EDUCATION

Stony Brook University – Stony Brook, NY — Major: Computer Science

Degree expected: May 2017

Roslyn High School – Roslyn Heights, NY

Regents Diploma — September 2009 – June 2013

PROFESSIONAL EXPERIENCE

Professional Player for Hirez Studios & eUnited — August 2015 – Present

- Responsible for competing live in both an online and LAN setting
- Handling public relations between us as well known community figures and our audiences
- Working closely with 5 other members in a high pressure team environment

SKILLS

- *Programming Languages:* Java, C++, C#, C, MIPS, Javascript, HTML, CSS, Python, Perl, SML, Prolog
- *IDEs and Source Control: Atom, Sublime Text, Visual Studio, Pycharm, NetBeans, Eclipse, Git, Subversion*
- *Software Libraries/Frameworks:* Swing, JUnit, Oxygine, Linux
- *Game Engines:* Unreal Engine 4, Unity, Oxygine
- *Applications:* MS Office, Adobe Photoshop

PROJECTS

Rocket Race — January 2017 – May 2017

https://khaoscomplex.github.io/rocketrace.html

- Sole developer of a vehicle physics based multiplayer game built entirely in Unreal Engine 4.
- Responsible for all the gameplay mechanics (including physics), every vehicle, all the projectiles, powerup system, objective system and scoring system.
- Built the game entirely purposed for multiplayer featuring strong server/client code and low bandwidth giving a nice smooth feel with any internet connection. All features are properly replicated.
- Created the entire HUD and a majority of the menu logic.
- Exposed most relevant variables and functions to blueprints so that designers can easily modify the game without having to program.
- Made to work through Steam.

Apoc Theory — November 2016 – June 2016

https://khaoscomplex.github.io/apoctheory.html

- Lead software engineer for a boss rush, bullet hell inspired video game developed in Unity.
- Responsible for most of the gameplay mechanics including player controller, camera movements, and boss controllers
- Designed and implemented the main menu and level select screens
- Created the first boss and developed the attacks alongside the tutorial levels.

Purple Life October 2016 – December 2016

https://purplelifegame.firebaseapp.com/

- Lead Gameplay Developer and Designer responsible for gamifying the cell automation based Conway's Game of Life into a progressive web app.
- Implemented new Game Cell identifiers to denote object types and cell logic.
- Added turret mechanics to the game of life that fire premade cell weapons.
- Utilized two different rendering loops to allow turrets to run before the player starts the main play loop. This enabled timing to be a mechanic.
- Developed a system to read in png files directly as levels by denoting certain pixel colors as game objects. Allows easy creation of levels in any art program.
- A quarter of the levels were designed by myself, especially with a focus on the turret stages/chapters of the game.

Ethereal April 2016 – June 2016

https://khaoscomplex.github.io/ethereal.html

- Sole Developer of a procedurally generated dungeon crawler prototype game built upon the Oxygine framework (C++)
- I was responsible for building essentially the entire system:
  - Box2D implementation
  - Player controller/mechanics
  - Using Oxygine's sprite sheet reader built a custom animation rendering system.
  - Procedural dungeon generation using a pool of rooms + dynamic room rendering.
  - Extended the Oxygine framework by using a tmxparser to add Tiled Map functionality allowing easier level creation.
  - Enemy AI with proper inheritance setup to allow easy extensions and additions
  - Weapon logic with proper inheritance
  - Extended the Oxygine framework by using the library Selene to add LUA scripting for changing game values on the fly
  - Responsible for designing about a quarter of the rooms.

PathX April 2014 – May 2014

https://khaoscomplex.github.io/pathx.html

- Sole developer of a point and click/node transversal game built from a professor provided MiniGame framework.
- Involved extensive use of Java's swing library alongside both self-created and provided images, audio and XML files.
- Incorporated a breadth first search algorithm used to transverse the graph nodes within the game.
- Developed a variety of Enemy AI characters that moved at different speeds.
- Created 20 levels and 16 unique power ups to be unlocked per player progression.