YEONGKI BAEK

Kirkland, WA   www.linkedin.com/in/yeongkib   www.yeongkib.ml   (425)-394-9026   yeongkib@gmail.com

Technical Skills

Languages	Software & Tools	API & Libraries	Physics / Math	Graphics Programming
▪ C / C++ (14/17)	▪ Visual Studio	▪ OpenGL	▪ Vector Calculus	▪ PBR
▪ SQL	▪ IntelliJ	▪ GLFW	▪ Linear Algebra	▪ Deferred Shading
▪ Java	▪ SVN	▪ FmodEX	▪ Statistics/Probability	▪ GLSL Shader
▪ Javascript	▪ Git	▪ STL	▪ Fuzzy Logic	
▪ Python		▪ Boost		

Academic Projects

AI Programmer | Starcraft : Broodwar https://goo.gl/CVE3D6 — May 2017 - Present, Solo Project

A custom AI bot with influence map, BWAPI, C++
- Researched, evaluated, and designed the conceptual model for the real-time simulation game from scratch
- Examined the performance and optimized the system **300%** faster than former version by union and bitwise operation
- Developed object manager, build order queue, and influence map to make dynamic strategies
- Integrated 3rd party library(map analyzer), Implemented custom pathfinder for the efficient movement

Graphics and Gameplay Programmer | Alaska Roll — Sep 2016 - Apr 2017, 5 Person Team

A 3D shooter rolling a snowball, C++ Custom Engine
- Built a custom deferred shading based graphics rendering system using OpenGL which increases performance and stability
- Devised collision system with physics programmer for better performance
- Navigated 3 programmers with task prioritization and delegation to best meet most deadlines and milestone expectations
- Designed the rule base and programmed multiple aspects including AI and basic gameplay

Gameplay Programmer | AMAZE — Sep 2010 - Apr 2011, 7 Person Team

A 2D puzzle shooter finding a route through the maze against the enemies, C++ Custom Engine
- Created a tool that allows designer to procedurally generate tile map without difficulty
- Constructed particle engine, text rendering systems and UI, increasing creative visual appeal in the game
- Wrote scalable gameplay components allowing designers to iterate on 3 bosses and 8 enemies across 5 levels
- Designed, implemented, tested, and iterated on the game's tutorial alongside the lead designer
- The Project concluded due to mandatory military service

Professional Experience

Software Engineer (internship)   **CobaltRay - Seoul, Korea**   Mar 2010 - Aug 2010
- Programmed a tool that helps to sync sheet music and song easier using MFC.
- Built, tested and deployed scalable, highly available and modular software products.
- Developed code fixes and enhancements for inclusion in future code releases and patches.
- Collaborated with product management to design, build and test systems.

Education

Bachelor of Science in Computer Science in Real-Time Interactive Simulation   Apr 2018
DigiPen Institute of Technology (Redmond, WA)
- Minor in Mathematics
- ABET, CAC Accredited Program