YEONGKI BAEK

Kirkland, WA   **in** 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
A custom AI bot with influence map, BWAPI, C++   Independent Project
- Designed the conceptual model for the real-time simulation game from scratch
- 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) and Implemented custom pathfinder for the efficient movement

Graphics and Gameplay Programmer | Alaska Roll   Sep 2016 - Apr 2017
A 3D shooter rolling a snowball, C++ Custom Engine   5 Person Team
- Built a custom deferred shading based graphics rendering system using OpenGL which increases performance and stability
- Devised rigid body physics system with physics programmer
- Designed the rule base and programmed multiple aspects including AI and basic gameplay
- Navigated 3 programmers with task prioritization and delegation to best meet most deadlines and milestone expectations

Gameplay Programmer | AMAZE   Sep 2010 - Apr 2011
A 2D puzzle shooter finding a route through the maze against the enemies, C++ Custom Engine   7 Person Team
- 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
- Implemented the game's tutorial alongside the lead designer
- This Project concluded due to mandatory military service

Professional Experience

Software Engineering internship | CobaltRay - Seoul, Korea   Apr 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