

# Oh Bum Jun

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Highly motivated and results-oriented Software Engineer with 2+ years of experience in C/C++/C# programming and STL, specializing in game engine architecture and performance optimization. Proven ability to design, develop, and implement robust and efficient client-side game systems, including experience with Unreal Engine and proprietary engines. Strong analytical and problem-solving skills with a focus on optimizing game performance, debugging, and enhancing player experience. Eager to contribute to the development of innovative software solutions within a collaborative and dynamic team environment, leveraging my C/C++/C# expertise in areas beyond game development, such as graphics APIs, Windows OS technologies, and network programming

## QUALIFICATIONS

- **Proficient in C/C++/C# and STL** with over 2 years of experience in C/C++ based game engine development
- **Proficient in developing core game engine systems**, such as event systems, real-time file watcher, garbage collectors, audio systems, ECS, image compression(DXT, ASTC), custom parsers(Json, Binary, Yaml) and multithreading optimizations
- **Expert in tool development using compiler APIs**, including Clang and Roslyn, delivering features like C/C++ runtime reflection, C# to C++ conversion tools

## PROFESSIONAL EXPERIENCE

### Com2us | Seoul, South Korea

Junior Game Engine Software Engineer, Jan 2023 ~ Present

- Improved real-time build system performance by 50% by resolving redundant DLL loading issues, inspired by Unreal Engine's Hot Reload, enabling real-time client project updates without application restarts
- Developed custom parsers and serialization logic for various formats (JSON, YAML, Binary, CMake)
- Implemented various game engine features leveraging multithreading, including real-time file watching, multi-threaded updates(JobSystem), and asynchronous data loading.
- Optimized image assets for real-time rendering with DXT, ASTC, and ETC2 compression
- Achieved 2.0 GB reduction in memory usage by optimizing memory allocator system using various forms of memory pools
- Accelerated Unity game code porting by at least 2 weeks through Roslyn-based C# to C++ conversion tool
- Improved development efficiency by developing C/C++ runtime reflection system using Clang Compiler API
- Achieved substantial reduction in crashes up to 55% through the implementation of object handle system
- Achieved 0.13 second improvement in game loop performance when processing 10,000 entities by optimizing both multithreading Job System and Entity Component System (ECS)

### Korea Gap Year | Seoul, South Korea

Web Programmer Intern, Sep 2020 ~ Dec 2020

- Developed both the front-end and back-end of company's new website using JavaScript, Node.js, MongoDB, HTML, and CSS

## PROJECT

### C/C++ Based Own Game Engine | Com2us | Jan 2023 ~ Dec 2024

- Developing C/C++ based proprietary game engine along with 15 team members

### Dungeon Delivery (Android) | Com2us | Jan 2024 ~ May 2024

- Launched game on Android market using proprietary game engine along with 15 team members

## EDUCATION

**School : Chung-Ang University** | Seoul, South Korea | Mar 2014 ~ Aug 2022 | GPA : 4.0 / 4.5

- Major in "Psychology", Double Major in "Statistic Based AI"
- Relevant courses : C Programming, Data Structure, Algorithm, Graphic Programming (OpenGL), Software Engineering, Numerical Analysis, Data Mining

**Credit Bank System** | Apr 2024 ~ Feb 2025 | B.S. Candidate in "Information and Communication Engineering" | GPA : 4.29 / 4.5

- Relevant courses : Computer Network, Database, Introduction to Information and Communication, Operating System, Computer Architecture, System Programming

**Game Client/Engine Programming Academy** : AssortRock Game Academy | Seoul, South Korea | July 2021 ~ Dec 2022

- Developed game client/engine using C/C++, WinAPI, DirectX11

**Purdue University IOT Summer Program** : Purdue University | Seoul, South Korea | June 2021 ~ July 2021

- Developed Solar Sensor IoT project with a team of four members

**Web Programming Academy** : Sparta Coding Club | Seoul, South Korea | Mar 2020 ~ May 2020

- Developed Web program using Html, Css, Javascript, MongoDB, Python

**Studied Abroad** | July 2006 ~ Aug 2007 to California in USA

## ACTIVITIES

**English Debate Club** | Jan 2016 ~ Dec 2016 | Participated in the International English Debate e.g., 2016. Macau BP

## TECHNICAL COMPETENCES

**Programming Languages** : C#, C++, C

**Graphics API** : OpenGL, DirectX11

**Operating Systems** : Windows

**Compiler API** : Clang (C/C++), Roslyn (C#)

**Database** : MYSQL, MongoDB

## CERTIFICATES & OTHER SKILLS

### Certificates

- **CLA**(C Language Global Certification), **CPA** (C++ Language Global Certification), **SQLD** (Database), **Linux Master Level 2** (Linux), **Network Administrator Level 2** (Network), **Engineering Information Processing** (Programming)

### Languages :

- English : Business Level Proficiency

