

Skills

General Domains

- Web Development
- Cloud Computing
- Machine Learning
- Low-level Optimization

Programming Languages

- C/C++
- C#
- Python
- Java
- JavaScript

Tools/Platforms

- Visual Studio
- CUDA Toolkit
- Jupyter Notebook
- Unreal and Unity
- Google Cloud Platform
- Firebase

Source Control/ Issue Tracking

- Jira
- Azure DevOps
- Git
- SVN

Languages

- English
- Korean
- Japanese

Professional Experience

Backend Software Developer

06/2023 – 08/2023

Twin Leaf Entertainment

- Developed "*CabinetWeb*", a web app for tracking physical documents in cloud environment.
- Implemented RESTful API in Node.js for robustness and security.
- Incorporated Google Cloud Platform + Firebase into the product for user and document management.

Academic Projects

Pipmo AR – 4-Person Team

01/2024 – 04/2024

UI/Interaction Programmer

- Explored Unity AR Foundation's capabilities on Android including image tracking, plane tracking, and occlusion.
- Developed real-time image tracking with velocity detection for immersive gameplay experience.

The Drawer War – 2-Person Team

08/2023 – 12/2023

Physics Engine Programmer

- Gained comprehensive understanding of Unity ECS Framework/data-oriented programming in C#.
- Tested separating axis theorem + edge collision + Baumgarte stabilization to improve stability of pyramid/Newton's cradle structures.

Concurrent BST – Solo

04/2023

Multithreading/Data Structure Programmer

- Developed a lock-based concurrent binary search tree in C++ on Linux/Makefile.
- Streamlined the debugging process with unit tests for correctness and memory leaks.
- Implemented hand-over-hand technique to boost performance 4-fold compared to its single-threaded counterpart.

Detecting Alzheimer's Disease – 3-person team

08/2021 – 04/2022

Machine Learning Engineer

- Built convolutional neural network using Python with Tensorflow in Jupyter Notebook.
- Adopted cuDNN technology to speed training up 13-fold.
- Achieved 97.2% sensitivity in Alzheimer's detection from MRI using an ensemble of VGG19, CNN, and ResNet50.

Education

DigiPen Institute of Technology (Redmond)

Graduated 2024

Bachelor of Science in Computer Science

GPA: 3.92