

Summary

Full-stack software engineer experienced in web applications, proficient in mathematical concepts, and skilled in developing image processing algorithms and data visualization. Demonstrated ability to successfully lead projects through an entire lifecycle, from conception to fully-fledged product.

Experience

2021 - Present **Software Engineer at** *Seoul, Republic of Korea*

Treatment Planning System - 3D Reconstruction

C++, C#, MFC

- ❖ Created a 3D reconstruction feature that generates and visualizes 3D surfaces derived from an input of 2D contour points
- ❖ Constructed an algorithm that transforms planes with complex topologies into polygon mesh entities
- ❖ Optimized the algorithm to facilitate real-time 2D to 3D object generation
- ❖ Calculated spatial alignment of polygon mesh objects onto regions of 3D medical images
- ❖ Engineered real-time representation of planar intersections of 3D objects

Web Pictures Archiving and Communications

JavaScript, React, Node

- ❖ Exhibitor and presenter at American Society for Therapeutic Radiology and Oncology 2023 Annual Exhibition
- ❖ Took on a comprehensive role in: project development, application architecture planning, full-stack software developing, and source code maintenance
- ❖ Applied WebGL in 2D and 3D medical image rendering on web browsers
- ❖ Applied threading, compression algorithms, and more to optimize computation and transfer of heavy data in challenging network conditions
- ❖ Implemented security measures for data transfer of sensitive medical information over the network

2018 - 2019 **Project Development Team Lead at** *New York, New York, U.S.A.*

Planned, directed, and coordinated free public educational programs. Past projects include Coding 101 for Beginners, Art History In NYC, etc.

2018 - 2018 **Software Engineer Intern at** *New York, New York, U.S.A.*

Solidity, Java, Android Studio

Developed a search application for Android based on Ethereum smart contracts.

Programming Languages & Frameworks

C, C++, Java, JavaScript, MFC, NodeJS, OpenMP, Python, ReactJS, Spring, VueJS

Language Skills

English (fluent), Korean (native), Mandarin (New HSK 6 proficiency), Italian (elementary)

Awards, Projects & Other Interests

- ❖ University Honors Scholar, New York University
- ❖ Project: A platform for roommate searching based on geolocation and personality compatibility
- ❖ Project: Healthcare payment system application
- ❖ Pottery