

HYUNHO LEE

+1 647-468-4144 | [✉ jeny95kr@gmail.com](mailto:jeny95kr@gmail.com)

[Github](#)

[Portfolio Link](#)

Innovative developer with a strong foundation in 3D rendering and web development.

Driven by a passion for creating user-centric services and solutions, committed to not just consuming skills, but actively applying them to develop impactful products that address needs.

Known for rapid adaptability, continuous learning, and a proactive approach to solving complex challenges.

EXPERIENCE

Osstem Implant

Jan 2021 – Jul 2022(1 year and 7 months)

Software Developer

Seoul, South Korea

- Developed a 3D image viewer using Qt and C++, incorporating user-friendly interactive features: Adjust opacity and apply filtering based on specific Hounsfield Units (HU) using controller. Set up a multi-controller system for applying color mapping to different image regions.
- Implemented a 3D rendering system utilizing C++ and ray tracing technique and real-time modification capabilities, achieving 13% reduction in processing time, reducing unnecessary re-rendering.

Hankuk University of Foreign Studies (Student work)

Mar 2018 – Dec 2018 / Mar 2022 – Jun 2022(1 year and 2 months)

C Programming Language Teaching Assistant

Seoul, South Korea

- Demonstrated strong leadership by coordinating and leading weekly lab sessions for group of 25-30 students, fostering active learning environment.
- Utilized communication skills to break down complex concepts into easily understandable modules.
- Mentored struggling students one-on-one sessions, employing active listening and address individual learning challenges.

PROJECTS

Ask PDF - Typescript | React | Next.js | Tailwind | Node.js | Express.js | Prisma

[Live Link](#)

- In ASK PDF users can upload PDF documents and ask questions about their content to AI.
- Implemented secure user authentication using JWT with both access and refresh tokens.
- Architected a database using Prisma ORM to store user information, increasing performance by reducing N+1 queries.
- To solve storing user's PDF in the cloud-basis store, Integrated Uploadthing for optimizing file upload and management.
- Integrated OpenAI and Langchain to create a natural language processing pipeline, vectorizing messages and PDF contents to deliver accurate and contextually relevant answer to user queries.
- Implemented secure payment processing and subscription management using Stripe and Webhook.
- Improve user experience by implementing text streaming features (as soon as AI generates answer, return response chunk by chunk in response stream so that client-side doesn't have to wait until AI generates full complete answer.)

Audiophile E-commerce – Typescript | React | Next.js | Tailwind

[Live Link](#)

- Developed a comprehensive product catalog system, allowing users to browse and interact with products
- Architected efficient state management using Zustand, enabling smooth shopping cart functionality and real-time updates.
- Integrated robust form handling and validation using react-hook-form with Zod schema.
- Implemented secure user authentication using Kinde and automated email receipts to customers using Resend.

3D Modification – C++

- Developed a complete 3D rendering pipeline using C++, including Modeling, Texturing, setting up Lighting and Camera, Rendering utilizing ray tracing technique
- Established and implemented the relationship to enable real-time interaction between the user on a 2D monitor and the 3D model, allowing for rotation around each axis (X, Y, Z), scailing, zooming and camera movement.

EDUCATION

Hankuk University of Foreign Studies

Mar 2017 – Feb 2024

Bachelor's degree in Bio Medical Engineering

Seoul, South Korea

Minor in Computer and electronics Systems Engineering