

Beomsu Kim

Los Angeles

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Instagram

Linkedin

Skills

Education

University of California San Diego

Sep.2019-Jun.2023

BS CSE: Computer Engineering

ROK National Forestry Cooperative Federation Scholarship

Dec.2022-Jun.2023

Experience

Junior Developer

• Spring • Java • SQL • MVC • JQuery • Deep Learning • PyTorch • Software Engineering

Fountain Valley

Solomon America

Feb.2024-Now

- Managing and developing solutions for Hyundai and Kia's product quality management system(PQMS) using JQuery, Oracle SQL, and Spring MVC structure on Tomcat
- Collaborating with the senior member to reconstruct a webapp version of the solution
- Preparing to participate in a machine learning project with Hyundai Glovis

Software Engineer

• HTML • ComputerVision • Machine Learning • Deep Learning • GANs • PyTorch

• Software Engineering

Los Angeles

Mitaa

Sep.2023-Feb.2024

- Built a [website](#) for memory clinic
- Managed patient dataset to use SSD to analyze medical images to catch Alzheimer's disease
- Built an appointment management system with **Google Firebase**

Machine Learning Engineer Intern

• Deep Learning • Machine Learning • TensorFlow • PyTorch • Computer Vision

• Image Augmentation • YOLO

Busan, South Korea

AT Solution

Apr.2022-Jan.2023

- **TensorFlowed** for data engineering at a commercial industry field using **YOLO**
- Generated a model to detect a pattern recognition in an image dataset
- Served as an exhibitor for the company's booth at CES 2023 in Las Vegas and Collaborate with the team members to convince the potential customer of the products

Computer Emergency Response Team

• Powershell • SQL • Computer Security

Incheon, South Korea

ROK Marine Corps

Oct.2020-Apr.2022

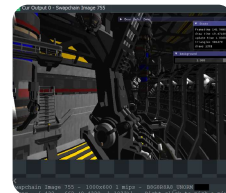
- Managed military vaccine servers for security updates using linux
- Drilled for a possible security breach situation including hacking mail, ransomware training
- **Powershelled** routine or repetitive works for efficiency using **REST APIs**
- Allocated IPs and controlled access to the networks for security

Projects

vktutorial beta version

- Vulkan • Computer Graphics
- Dynamic Rendering for code simplicity and Interactive camera
- RenderDoc for Debugging
- Abstraction based on <https://vkguide.dev>

Jan.2024-Feb.2024



Dive into Deep Learning

- Machine Learning • Python • PyTorch • TensorFlow • MxNet • d2l
- Implemented the concept of machine learning following the guide in *Dive into Machine Learning*
- **Recommender System, GANs, Transformer, Deep FM**
- Colabed for producing immediate output and feed back

Jul.2023-Oct.2023

Particle System with subdivision

- Computer Graphics • C/C++ • Multithread • The Forge • Vulkan
- Advanced GPU rendering based on **TF** engine(**AAA**) **Vulkan** and **DirectX** pipeline simulating particle collision responses
- Instanced, indirect, and indirect with compute **shader rendering options** to compare the performance between them
- **LOD** strategy used for performance acceleration

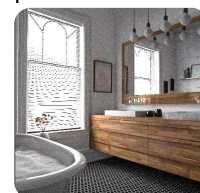
Aug.2023-Sep.2023



Ray Tracing and Tone Mapping

- Computer Graphics • C/C++ • Multithread • Ildb
- Ray tracing renderer with **BVH** and multithread acceleration
- **Importance sampled** for area lights and used GoogleTest
- Several **Tone Mapping** strategies are used

Apr.2023-Jul.2023



ETA Predictor

- Machine Learning • Python • Colab • Deep Learning • PyTorch
- Feature engineered based on traffic information of the traffic data set in **Kaggle**
- Used **d2l** library referencing the book Dive into Deep Learning to solve real world problems by analyzing the pattern
- Planning to leverage error function than sigmoid to be robust against outliers

Apr.2023-May.2023

Sonette Predictor

- Machine Learning • Python • Colab • Deep Learning • LLM
- Given the data set of Shakespearean sonnets and the first 40 characters of hint, generated what will be following the seed
- Generated sequences using **attention** model to solve the natural language processing problem
- Used d2l module on **PyTorch**, following the Dive into Deep learning tutorial

Apr.2023-May.2023