Nik Kim

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Education

M.S. **Computational Design**
@ Carnegie Mellon University, Pittsburgh, PA, U.S.A., 2025.05

B.S. **Architecture**
@ Dongguk University, Seoul, Korea, 2019.08

Useful Links

Portfolio
ML Blog
GitHub
YouTube

Skills

Python, Java, C#, Unity Processing, LaTex, Javascript, Rhino 3D, Grasshopper

Coursework

Computer Science
Fundamentals of Programming Java for Application Programmers, Data Structures for Application Programmers

Game
Game Programming for Designers, Introduction to the Unity Game Engine, Designing for XR

Machine Learning
Introduction to Deep Learning, Mathematical foundations of Machine Learning, Computational foundations of Machine Learning

Work Experience

Carnegie Mellon University, Pittsburgh, PA

Research Assistant — 06, 2024 –
Why Research Lab, Prof. Daragh Bryne

- Developed web API that gamifies web 3d model into text adventure game for visually impaired users.

Head Teaching Assistant and Research Assistant — 10, 23 – 04, 24
Prof. Juney Lee

- Head TA of Structural Design 1: Form and Forces.
- RA developing course materials on building structure.

Studio Heech, Seoul, Korea — 07 – 09, 2022

Architectural Designer
- Led led a spatial design project as a project manager

VS-A Korea, Seoul, Korea — 2019 – 2022

Façade Consultant
- Technical consultant in between designers and engineers.
- Engineered multiple projects involving design automation and optimization.

Game Development

Tilt Five Battleship, AR Game, Unity and Tilt Five
Team project — role: UX researcher, particle effect and animation programmer
- AR version of the classic board game "Battleship" using Tilt Five tabletop headset.

Mole Archy, VR Game, Unity and Meta Quest 2
Team project — role: producer, programmer
- VR game featuring rookie mole exterminator.

A Walk with Shooting Star, 3D Adventure, Unity
Individual project
- LLM powered conversation based journaling game.

API Development

Matterport 3D to Text Adventure
Research Assistant, Prof. Daragh Bryne
- Programming a web tool that converts web 3D models into text adventure formats.
- Accessibility design

Research

Little Cooperative Machines – *on going*
Master's Thesis, Co Advisor Prof. Daragh Byrne, Vernelle Noel
- Developing local reinforcement learning game agent that cooperates with human players in real time.

Human-Machine Guitar Hero
Independent Study, Advisor Prof. Paul Pangaro
- Developed a cooperative machine to play Guitar Hero with a human player.
- Paper selected and presented at the 2024 Meaningful Play conference.