Jinhyung Ahn

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Academic Interests and Objective

Research Interests

- **Computer Graphics**: AI-Enhanced Rendering, Physics-based Simulation
- **3D Vision**: Novel-View Synthesis, Deformable 3D Reconstruction, 3D Representation Learning

Academic Objective My academic goal is to conduct research on 3D vision models that can be effectively integrated into the VFX pipeline for live-action footage, particularly in the areas of 3D simulation, deformation and rendering. I aim to explore how AI-driven 3D Graphics can enhance these processes and contribute to more efficient and realistic Visual Effects.

Education

Yonsei University GPA: 4.05/4.3

Seoul
Mar 2023 – Present

- **BS** Computer Science
- **BA** Philosphy

Capilano University GPA: 4.38/4.5

Vancouver, BC
Sep 2019 – Apr 2020

- **Diploma** Digital Visual Effects

Experience

Yonsei Artificial Intelligence Club (YAI)

Jul 2024 - Present
Member

- Projects
  - Multi-class image classification project "The Dog's Perspective"
  - Participating in the "CGMaker with sparse 3DGS" project for the 5th YAICON, focusing on dynamic novel view synthesis (NVS) based on the MVSplat model
- Research Paper Reading Group
  - Participated in a paper reading group focused on foundational research in Computer Vision (CV)
  - Led a paper reading team as the team leader, focusing on foundational research in Natural Language Processing (NLP)
- Weekly Regular Sessions
  - Presented and led discussions on computer vision (CV), natural language processing (NLP) domain during weekly sessions

Yonsei Computer Club (YCC)

Mar 2024 – Present
Member

- Unity Game Development Project
  - Participating in a Unity game development project as a developer, supported by WORKSTATION program under the Institute for Higher Education Innovation(IHEI) at Yonsei University
- Study Group
  - Participated in and organized various study groups related to Computer Graphics and AI

Projects

CGMaker with sparse 3DGS — Dynamic Sparse NVS Project

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WIP
Team Member
Developer
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- Contributed to dataset preparation, model selection, visualization of novel camera perspectives for rendering, and COLMAP-based data extraction
- Assisted in generation of novel camera perspectives and model inference
- Tools Used: Python, Pytorch, Blender

Zoo Out! — Unity Mobile Game Development Project

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WIP
SCHOLARSHIP
Team Member
Gameplay Developer
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- Designed and implemented core game systems, including enemy behavior algorithms, weapons functionality, and player mechanics, ensuring seamless gameplay and interaction.
- Tools Used: C#, Unity

LG Aimers 5th Hackerton — Anomaly Prediction Project

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Jul 2024 – Aug 2024
Team Leader
Developer
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- Led the development of a classification model to predict product anomalies using corporate manufacturing data, with comprehensive oversight of data preprocessing, model design, and hyperparameter tuning
- Achieved a top 30% rank in the competition.
- Tools Used: Pytorch, Python

The Dog's Perspective — Multi-class Image Classification Project

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Jul 2024 - Aug 2024
Team Member
Developer
</div>

- Developed a 5-class image classification model utilizing EfficientNetV2 architecture to predict dog's perception of human emotions. Contributed to the implementation of the model, as well as the design and execution of data preprocessing pipelines and experimental modules.
- Tools Used: Pytorch, Python

Transformer-based KO-EN Machine Translation Project

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Sep 2024 - Oct 2024
Personal Project
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- Developed a Transformer model for the Korean-to-English machine translation task, based on the seminal paper *"Attention Is All You Need."* Built the model from scratch, achieving accurate translation performance.
- Tools Used: Pytorch, Python

Skills

Languages: Korean(Native), English(TOEFL iBT 107/120)

AI: Pytorch

Programming Languages: Python, C, C++, C#, Java

CG & Design: Figma, Maya, Houdini, Blender, Unity, Unreal Engine