# **Hyun Kang**

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### **Profile**

**Building with Insight, Innovating with Skill.** My approach is rooted in first-principles thinking, seeking to understand the fundamental 'why' behind complex problems. My expertise lies in 3D vision/graphics and diffusion models. I'm confident in learning new skills and readily adapt to new challenges.

#### **Education**

Mar 2022 - Jul 2024 Seoul, Korea

#### Yonsei University | MEng in Computer Science

Cumulative GPA: 4.11 / 4.50

• Advisor: <u>Dr.In-Kwon Lee</u>

 Research Areas: 3D Vision, Physical Simulation, Diffusion Models

• Thesis: "Diffusion Guidance Tuning with Semantic Decomposition"

Mar 2018 - Feb 2022 Seoul, Korea

# Yonsei University | BEng in Computer Science

Cumulative GPA: 3.86 / 4.50

Jul 2012 - Aug 2017 Nairobi, Kenya

#### West Nairobi School

Graduated with Salutatorian Honors

### **Skills**

#### **Technial Skills**

- Main Language: Python (PyTorch, Open3D, LangChain)
- Web Development: React Framework (Next.js)
- Miscellaneous: Linux Commands, Git, Shell Scripting, LaTeX

#### Soft Skills

- Effective Communication, Critical Thinking, Self-Motivation, Time Management
- Language: Korean (native), English (Proficient; TEPS: 474/600)

#### **Publications**

arXiv, 2023

**Hyun Kang**, Dohae Lee, Myungjin Shin, In-Kwon Lee. 2023. "Semantic Guidance Tuning for Text-To-Image Diffusion Models." arXiv preprint arXiv:2312.15964 (2023).

SIGGRAPH ASIA, 2023

Dohae Lee, **Hyun Kang**, and In-Kwon Lee. "<u>ClothCombo:</u> <u>Modeling Inter-Cloth Interaction for Draping Multi-Layered Clothes."</u> ACM Transactions on Graphics (TOG) 42.6 (2023): 1-13.

# **Projects**

Jan 2025 - Feb 2025 Solo Project

### <u>Tradinsight: Automated Crypto Trading Agent</u>

• Develop an automated crypto trading agent that uses technical analysis and sentiment analysis to make trading decisions.

Dec 2024 - Jan 2025 Solo Project

# Al Agent for Medication and Supplements Safeguards

 Develop an AI agent app that can easily manage medications, check interactions, and ensure safety, especially for seniors

Dec 2021 - Mar 2022 Solo Project

# Designing and Prototyping a Full-Body 3D Scanner

- (Hardware) Built a 3D scanner with extremely low budget (\$2.000)
- (Software) Develop a pipeline for an automated 3D reconstruction and 3D segmentation for clothes

## Jun 2021 - Dec 2021 Project Lead

# Part-Aware 3D Reconstruction of a Clothed Avatar from a Single Image

• Develop a pipeline for 3D avatar reconstruction from a single view image and auto-rigging for animation

#### Jan 2021 - Jun 2021 Project Member

# **Detecting and Captioning Web Components**

- Build a dataset and train an AI model to detect web components (such as banners, images, sidebar)
- Develop a web extension for detecting and captioning web components for better UX of blind people.

### Mar 2021 - May 2021 Project Lead

# Sizeyourself: Virtual Fitting Solution

 Build a web app providing user size data for improved online retail experiences.

#### **Honors & Awards**

Grand Prize @ FastCampus Al Ideathon Jan 2025

(Al Agent for Medication and Supplements Safeguards)

Jun 2024

CLO Paper Award @ KCGS 2024 (ClothCombo: Modeling Inter-Cloth Interaction for Draping Multi-Layered Clothes)

Grand Prize @ Yonsei Graduate Student Startup Competition Sep 2024

Spring 2022 - Fall 2023 Yonsei University Graduate School Scholarship

Grand Prize @ Dept. of Computer Science Capstone Project (Part-Aware 3D Reconstruction of a Clothed Avatar from a Single Image; Detecting Spring 2021, Winter

and Captioning Web Components

Misc.

Aug 2024 - Dec 2024 eXg Biomedical Solutions Co.,Ltd.

Build a cross-platform app using electron

Jan 2022 - Jun 2022 TA for "OOP" & "Understanding AI and Using AI"

Dec 2021 - Jun 2022 YAI (Yonsei Artificial Intelligence)

Research member

Mar 2022 - Feb 2024 Virtual Fitting Start-up "Metown"

· Research Member; Research and summarize new virtual fitting

technologies

Aug 2020 - Dec 2021 Concat Inc.

Front-end developer (next.js)

Yonsei International Admission Office Dec 2019 - Aug 2020

Automate applicant's screening process

Jun 2018 - Dec 2019 YBL (Yonsei Blockchain Lab)

IMAGURU blockchain hackathon

Klaytn blockchain hackathon

Ministry of Science and ICT blockchain report

<sup>\*</sup>underlines are links