HUICHAN SEO

2135 Wightman St Apt. 1, Pittsburgh, PA 15217, USA

+1 412-514-7670 · chans@andrew.cmu.edu · [Portfolio](#) · [GitHub](#) · [LinkedIn](#)

Research Interests

Trustworthy ML Systems; Responsible AI & Governance; Cultural Bias in Multimodal Generative Models

Education

Dongguk University   Mar 2019 – Feb 2025
Seoul, South Korea, B.S. in Computer Science and Engineering
CGPA: 3.79/4.50 · Full-Ride Scholarship (merit-based)
Teaching Assistant: Introduction to Programming in C (2022), AI Basics with Python (2023), Software Developer Training Program (2023)

Research Experience

Bot Intelligence Group (BIG) at Carnegie Mellon University   Jun 2024 – Present
Research Associate I (Mar 2025 – Present); Summer Intern & Remote Collaborator (Jun 2024 – Feb 2025)
Supervisor: **Prof. Jean Oh**
- Built high-quality cultural dataset for bias mitigation: automated data pipeline for large-scale crawling; global peer-review platform. ([View](#))
- Led multi-country evaluation of cultural bias in image generation; designed cultural evaluation metrics. ([GitHub](#))
- Developed model-agnostic adapter and agent for cultural bias correction in generative image models. ([GitHub](#))
- Open-sourced SD3.5 LoRA fine-tuning implementation, widely adopted as community reference. ([GitHub](#))

Dongguk University   Mar 2024 – Dec 2024
Undergraduate Researcher, Team Leader · Supervisor: **Prof. Yeonsoon Shin**
- Researched Graph-RAG architectures to improve accuracy in point-of-interest (POI) recommendation systems.

Publications

1. **Huichan Seo***, Sieun Choi*, Minki Hong*, Yi Zhou, Junseo Kim, Lukman Ismaila, Naome Etori, Mehul Agarwal, Zhixuan Liu, Jihie Kim, Jean Oh, "Exposing Blindspots: Cultural Bias Evaluation in Generative Image Models," *Under review, IASEAI 2026.* https://arxiv.org/abs/2510.20042

2. **Huichan Seo***, Se-hoon Kim*, Ik-Bum Park*, Youn-Soon Shin, "Enhancing Recommendation System Performance with Graph-RAG: Analysis Using Travel and POI Datasets," *Korean Institute of Information Technology, Nov 2024.* https://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE12025120

3. **Huichan Seo***, Jean Oh, "CCUB2 Agent: Model-Agnostic Cultural Bias Correction in Generative Models," *Manuscript in preparation.*

Professional Experience

MY4CUT   Jun 2024 – Present
Founder, Independent Developer
- Built a photo booth platform; achieved **#3 in Camera category**, **40K+ downloads, 300K+ photos, 300+ B2B clients**.

VIEWPAM Co., Ltd.   Mar 2023 – Dec 2024
Co-founder, CTO
- Led development of medication management platform; built global drug database; **Korea's Top 100 Startups 2025**, **CES 2025**.

Patents

LangChain-Based Graph-RAG Recommendation System. Korean Patent Application S-A-2024-0333   Nov 2024
Graph-based data relationship modeling system that uses LangChain to provide more structured and contextual responses in recommendation systems.

Own Customized Walking Routes. Korean Patent Application S-A-2023-0260   Dec 2023
System for generating and managing personalized walking routes based on user preferences and environmental constraints.

Smart Walking Route Recommendation System. Korean Patent 10-20230152191   Nov 2023
Electronic device-based system for recommending personalized walking routes.

Awards

Venture Startup Academy Hackathon, Minister's Award (Ministry of SMEs and Startups)	Aug 2024
Kakao x goorm Jeju Hackathon, Chairman's Award (Kakao)	Feb 2024
LINC 3.0 Capstone Design Competition, National Research Foundation of Korea Award	Nov 2023
Microsoft Generative AI Hackathon, Chairman's Award (Microsoft)	Sep 2023
Dongguk University Capstone Value-Up Program, President's Award	Aug 2023
Osaka Institute of Technology Hackathon, President's Award	Jul 2023
Singapore Global Startup Competition, 1st Place	Feb 2023

Extracurricular Projects

Incheon Airport Congestion Tracker (View) — Feb 2025
Real-time airport congestion tracker; peaking at **3,000+** daily users.

Rural Transit Information App (View) — Jan 2025
Bus notification app for rural areas; covered by **major Korean news networks**.

Pronunciation Coach for the Hearing-Impaired (View) — Nov 2023 – May 2024
Speech-to-text pronunciation app with vibration feedback; **Global Top 100** in 2024 Google Solution Challenge.

Invited Talks

"Waking Up to Find My App Ranked #3 on the App Store" — 2024
10+ tech conferences, corporate seminars, and universities.

"Being the First Cohort: Lessons in Leadership" — Aug 2024
Google Korea's GDSC Excellence Leader Seminar.

"Empathy and Growth through IT Volunteering" — Dec 2023
Rehabilitation International Korea.

Extracurricular Activities

Humanoids 2025 Robot Fashion Show (View) — Jun 2025 – Oct 2025
Webmaster, Organizer · Built event site reaching 78+ countries with global research lab submissions.

Kakao x goorm 9oormthonUNIV (View) — Nov 2022 – Nov 2025
Founder, Leader · Founded national IT coalition (67 universities); organized 10+ hackathons with Kakao, Figma sponsorship.

Google Developer Student Clubs (GDSC), Dongguk University — Jul 2023 – Aug 2024
Founder, Leader · Founded first GDSC chapter; **2023–2024 Outstanding Korea Leader** by Google; led 30+ events.

Dongguk University IT Volunteer Club — Mar 2021 – Jan 2024
Leader (2023) · IT mentoring for disabled students; Python sessions for middle/high schoolers.

Dongguk University Web Programming Club — Mar 2021 – Jan 2024
Leader (2022) · Top 3 finish in national hackathon (500+ teams); weekly coding workshops for non-CS majors.

Skills

Programming: Python, C/C++, TypeScript, Swift, Dart, Java
ML/AI: PyTorch, diffusion models, LoRA/PEFT fine-tuning, VLM/VQA-style evaluation, RAG
Frameworks: Next.js, Flutter, React Native, SwiftUI, FastAPI, Django
Tools: Git, Docker, Linux, AWS, GCP, Figma