

Geonho Kim

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EDUCATION

Chung-Ang University — B.S. in Software Engineering Seoul, South Korea | Expected Feb 2029
GPA: 4.25 / 4.5 (Senior year, 6 semesters completed)

RESEARCH EXPERIENCE

Undergraduate Researcher — Spatial Intelligence Lab Jan 2026 – Present

Chung-Ang University · Advisor: Prof. Jongmin Lee · [Lab Website](#)

- Participated in the [ICCV 2025 COGS Workshop Challenge](#) to deepen hands-on understanding of Gaussian Splatting at the systems level.
- Engineered a custom CUDA kernel implementing Mahalanobis distance-based rasterization, achieving an **8% speedup over the FlashGS baseline** with no degradation in image quality (PSNR).
- Organized a study group to work through Stanford CS231a (Computer Vision: From 3D Reconstruction to Recognition), building a deeper understanding of 3D geometry and reconstruction relevant to ongoing research.

Undergraduate Researcher — Creative Vision & Multimedia Lab (CMLab) Mar 2025 – Dec 2025

Chung-Ang University · Advisor: Prof. Jihyong Oh · cmlab.cau.ac.kr

- Co-First authored **SUCCESS-GS** ([arXiv](#), [project page](#)), a survey submitted to ACM CSUR that systematically categorizes 100+ efficient 3D/4D Gaussian Splatting methods into Parameter Compression and Restructuring Compression taxonomies.
- Contributed to **MoRel** ([arXiv](#), [project page](#)), accepted to CVPR 2026, authoring the Related Work section through an extensive literature review on dynamic scene modeling and 4D Gaussian Splatting.
- Conducted weekly paper reviews on state-of-the-art Computer Vision research alongside lab members, and worked through Stanford CS231n (Convolutional Neural Networks for Visual Recognition) to build a strong theoretical foundation in deep learning.

SELECTED PROJECTS

Personalized Real Estate Recommendation Service 2025 | Capstone Design

- Built a responsive SPA with React + Vite, integrating public data APIs to analyze lifestyle metrics (safety, convenience) and render personalized property matches with dynamic data visualization.
- Designed a modular component architecture to handle complex state management and real-time filtering.

Core Computer Science Implementations 2023 – 2024

- LL Parser (C): Designed a lexical and syntax analyzer for mathematical expressions, implementing tokenization and full parsing logic.
- B-Tree (Python): Implemented a balanced B-Tree structure handling large-scale insertions and deletions with optimized search efficiency.

TECHNICAL SKILLS

Languages: Python, C, C++, Java, JavaScript, TypeScript, SQLite, CUDA

Frameworks & Libraries: PyTorch, NumPy, React, Vite

Tools & Platforms: Git, Linux, LaTeX

EXTRACURRICULAR ACTIVITIES

CUAI — Chung-Ang University Artificial Intelligence

Feb 2026 – Present

- Actively participating in a university AI society focused on paper presentations, study sessions, and Computer Vision projects.

GLAM — CAU Global Ambassador

Jan – Dec 2025

- Supported international students in adapting to campus life, developing the ability to communicate comfortably and effectively in English across diverse cultural contexts.

ML/DL Study Group

Jan – Mar 2025

- Organized weekly sessions with peers and a graduate mentor covering Linear Algebra, Calculus for ML, and implementations of Linear Regression and Neural Networks.

CAUSW — CAU Software Department Club

Mar – Jul 2024

- Contributed as a front-end developer to the maintenance and operation of the Chung-Ang University Software Department website.

HighClear — Badminton Club

Mar 2023 – Dec 2024

- Served as an executive member for one and a half years, helping lead club operations and coordinate activities for members.