

Injun Baek

M.S. Student, Machine Intelligence & Pattern Analysis Laboratory (MIPAL), Seoul National University
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Research Profile

I am an M.S. student in the Machine Intelligence & Pattern Analysis Laboratory (MIPAL) at Seoul National University. My research areas include Generative AI, Image/Video Synthesis, and Agentic LLM. I am also a Senior Software Engineer at Samsung Electronics, applying deep learning, data engineering, and production ML systems to real-world applications.

Education

Seoul National University <i>M.S. Student in Artificial Intelligence</i> Machine Intelligence & Pattern Analysis Laboratory (MIPAL)	Seoul, Korea Mar. 2025 – Present
Hanyang University <i>B.S. in Computer Science</i> Department of Computer Science	Seoul, Korea Mar. 2009 – Feb. 2016

Publications

- VDPP: Video Depth Post-Processing for Speed and Scalability (Co-first)**
Daewon Yoon, **Injun Baek**, Sangyu Han, Yearim Kim, Nojun Kwak
9th Workshop on Efficient Deep Learning for Computer Vision (ECV), CVPR, 2026
- PedaCo-Gen: Scaffolding Pedagogical Agency in Human-AI Collaborative Video Authoring**
Injun Baek, Yearim Kim, Nojun Kwak
Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA), 2026
- When Saying No Makes Better Videos: Designing Dual Gatekeeping for Pedagogically Grounded AI Content Creation (Co-first)**
Yearim Kim, **Injun Baek**, Nojun Kwak
Understanding and Engaging Critical Resistance to AI in Education (CHI 2026 Workshop), April 2026

Experience

Samsung Electronics Visual Display Division <i>Senior Software Engineer</i>	Suwon, Korea Jan. 2016 – Present
<ul style="list-style-type: none">Developed AI-based recommendation and screen-recognition systems for visual display products.Built ETL pipelines, data warehouse models, real-time streaming workflows, A/B tests, and MLOps workflows.	
Samsung Electronics Visual Display Division <i>Intern Engineer</i> Summer internship	Suwon, Korea Jul. 2015 – Aug. 2015

Awards

Samsung SW Awards (Team) - Innovative Technology Visual Display Division, Samsung Electronics	Dec. 2023
Samsung SW Awards (Individual) - Programming Visual Display Division, Samsung Electronics	Sep. 2022

Patents

METHOD AND SERVER FOR PROVIDING RECOMMENDED CHANNEL LIST BY USING CLUSTERING	Jun. 20, 2024
Patent Application PCT No. PCT/KR2023/018425 / WO2024128578A1	
Electronic device and method of setting operation mode thereof	Feb. 11, 2025
Patent Registration US No. 12223334	
Electronic device for executing application in background process and operating method of the electronic device	Sep. 10, 2024
Patent Registration US No. 12086611	
METHOD FOR PROVIDING A RECOMMENDING LIST AND DISPLAY APPARATUS THEREOF	Jun. 3, 2024
Patent Registration KR No. 1026705240000	
Method for providing recommended channel list, and display device according thereto	Aug. 9, 2022
Patent Registration US No. 11412308	
Providing a list including at least one recommended channel and display apparatus thereof	Sep. 22, 2023
Patent Registration KR No. 1025820460000	
ELECTRONIC APPARATUS AND CONTROLLING METHOD THEREOF	Feb. 27, 2023
Patent Registration KR No. 1025034660000	

Certificates

Samsung Associate Architect, Samsung Electronics	Jul. 2024
Samsung Data Science - Level 3, Samsung Electronics	Apr. 2023
Samsung SW Certificate - Expert, Samsung Electronics	Mar. 2023
Samsung Best Reviewer, Samsung Electronics	Dec. 2022

Skills

Languages	C/C++, Python, SQL
Data Analysis	Data Science, Data Mining, A/B Testing, Feature Engineering, PySpark, Pandas, NumPy, Matplotlib, Seaborn
Machine Learning	Deep Learning, Recommender Systems, Computer Vision, Generative AI, Agentic LLM, PyTorch, Scikit-Learn
Databases	MySQL, DynamoDB, Athena, MongoDB
Tools & Technologies	Git, AWS, Jupyter

Languages

Korean (Native) | English (Fluent)