

Jaekun Lee

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EDUCATION

Yonsei University

B.S. in Architectural Engineering

B.S. in Computer Science (Double Major)

GPA 4.2/4.3 - Ranked 1st in Dept. of Architecture & Architectural Engineering

Seoul, South Korea

Mar. 2019 – Present

RESEARCH INTERESTS

Architectural Engineering

- **Digital Transformation:** Building Information Modeling, Construction Simulator
- **Construction Automation:** Construction Management, Design Compliance Checking

Computer Science

- **Natural Language Processing:** Retrieval Augmented Generation, Prompt Engineering
- **Computer Vision:** Depth Estimation, 3D Reconstruction

RESEARCH EXPERIENCE

Yonsei University

Researcher in Building Informatics Group

- Automated Building Code Interpretation (Preparing for **Advanced Engineering Informatics**)
- Semantic Elaboration of Building Objects (Under review in **Advanced Engineering Informatics**)

Sep 2023 – Present

Seoul, South Korea

Korea Institute of Civil Engineering and Building Technology

Undergraduate Research Intern in BIM Research Cluster

- Automated 3D Model Generation for Construction Equipment [**ICTC2023**]

Jul 2023 – Aug 2023

Goyang, Gyeonggi

CONFERENCE PUBLICATIONS

1. **Jaekun Lee**, Jisu Myung, Ghang Lee, “Development of Game-Based BIM Education Method and Its Effectiveness”. Under Review in ***KICEM National Undergraduate Academic Conference***. 2024.
2. **Jaekun Lee**, Hyemin Lee, Hyounseok Moon, “An Automated 3D Model Generation Framework for Construction Equipment Images using Edge Detection Algorithm”. in ***ICTC***. 2023.

JOURNAL PUBLICATIONS

1. Suhyung Jang, Ghang Lee, Minkyong Park, **Jaekun Lee**, Seungah Suh, Bonsang Koo, “An Automated 3D Model Generation Framework for Construction Equipment Images using Edge Detection Algorithm”. Under Review in ***Advanced Engineering Informatics***. 2024.

AWARDS AND HONORS

Awards

Commendation for Establishing Missile Operational Readiness

2022

- Developed an **Enemy Missile Specifications Assessment Program** for timely intelligence provision
- Major General Commendation from Commander of the ROK Army Missile Strategic Command

3rd Prize, 2nd Army Big Data Analysis Competition

2021

- **Jaekun Lee**, “Development of a Military Policy Demand Forecasting Model through the Analysis of Self-Development Expenditure Details for Soldiers”. (Major General Commendation)

Win an Award, 2020 PosART Undergraduate Architecture Design Contest

2020

- **Mokkoji**, a dynamic pergola that transforms with the four seasons using PosART (POSCO Advanced Resolution printing Technology) steel

1st Prize, 2019 Green Building Hackathon 2019

- **Jaekun Lee**, Jihoon Kim, Hyeyoon Lee, Conceptualized “User Behavior Analysis-based Building Energy Management System”.

2nd Place, 2019 Nexon-Yonsei Creative Platform Contest 2019

- **Technical Team Leader of ‘Hermes’**: Led the development of an “Electronic Guidance System for Visual Impairment Using Beacon, Gyro Sensor and Acceleration Sensor”

Academic Highest Honors Spring 2019, Spring 2023

- Top 1% Semester GPA in College of Engineering

Academic Honors Fall 2019, Spring & Fall 2020, Fall 2023

- Top 10% Semester GPA in College of Engineering

Scholarships

Coll. of Engineering Jilli Scholarship Fall 2019, Spring 2020, Spring & Fall 2023, Spring & Fall 2024

- Merit-Based Scholarship

Oh Ilhong foundation Scholarship Fall 2020

- Merit-Based Scholarship

TEACHING EXPERIENCE

Yonsei University (Online Lecture) Opening in Dec 2024

Lecturer of “No-Code Introduction to Deep Learning for Non-Majors” Seoul, South Korea

- A Lecture for non-CS major students who wish to understand the basic concepts of deep learning and help them start their own deep learning research related to their field of study

Seodaemun-gu Lifelong Learning Center Jul 2020 – Nov 2020

Assistant Lecturer of “Adobe Premier Rush Workshop” Seoul, South Korea

Korea Invention Promotion Association 8th Aug 2019

Lecturer for “10th Anniversary of Center for Creative Entrepreneur” Seoul, South Korea

- Lectured MVP Crimson Greetings (8 hours)

WORK & EXTRACURRICULAR EXPERIENCE

SK Happiness Foundation LOOKIE, SolveIT Sep 2023 – Jul 2024

Development PL Seoul, South Korea

- Co-founder and Development Project Leader of SolveIT (Specialized club for solving disability issues)
- Developed Yack Son, a low-dose liquid measuring and administering tool for the visually impaired parents

Army Missile Strategic Command Apr 2021 – Oct 2022

Terrain Data Analysis Engineer (Military Service) Location Undisclosed

- Supported missile operation by analyzing secret terrain data and aerial photographs

CNTTECH Co., LTD Feb 2020, Dec 2020 – Feb 2021

IR Examiner & Startup Accelerating Team Intern Seoul, South Korea

- Secured government-funded programs including KIBO VentureCamp, KODIT StartupNEST
- Participated in more than 60 start-up IR meetings

SKILLS & INTERESTS

Skills: Python, Java, C#, Rhino3D, Autodesk Revit, AutoCAD, ArcGIS, TerraExplorer

Languages: Korean(Native), English(TOEFL iBT 100)

Hobbies: Takwondo (Black belt 3rd dan), Haegeum (Korean Traditional Instruments)