

# Bong-gu Kang

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## Education

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### Jeonbuk National University

Bachelor of Computer Science and Engineering

Jeonju, South Korea

Feb. 2025 (Expected)

- Major GPA 4.35/4.50; Cumulative GPA 4.16/4.50 📄

## Projects

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### Dormitory Roommate Matching Platform for Mobile

Roomie 🌐

Jan. 2023 – Feb. 2024

- Implemented an algorithm for recommending users based on behavior similarity using content-based filtering and served as the front-end development lead
- Deployed to both [iOS](#) and [Android](#) marketplaces
- Technologies used: Dart, Flutter, Firebase

### Dormitory Roommate Matching Platform for Windows

FindRoommate 🌐

Mar. 2022 – Jun. 2022

- Led front-end and chat server development, including refactoring using the MVVM design pattern
- Technologies used: C#, WPF

### Routing Application Based on Streetscape Sentiment Scores, in Collaboration with LX

Garobonneung

Mar. 2024 – Jun. 2024

- Managed inference of the Streetscape Image Score Model (A human machine adversarial scoring framework for urban perception assessment using street view images)
- Integrated predicted scores into the routing algorithm
- Technologies used: Python, PyTorch, JavaScript, Lua

### Application for Generating Images of the Animation *Black Rubber Shoes*

BlackRubberShoes 🌐

Sep. 2023 – Dec. 2023

- Led training and inference of the Image Generative Model (U-GAT-IT)
- Architected and deployed instance servers using AWS Elastic Load Balancing, AWS Auto Scaling and AWS Elastic File System
- Technologies used: Python, PyTorch, AWS, Flask, Locust

### Wheelchair Tennis Game Compatible with a VR Environment

WheelchairTennisVR 🎮

Mar. 2024 – Jun. 2024

- Implemented wheelchair movement, racket-ball interaction, and considerations of motion sickness theory
- Technologies used: C#, Unity, Meta Quest 2

## Experience

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### Visual Computing Lab. 🌐

Undergraduate Internship (Advisor: Prof. Hyung-ki Kim)

Jeonju, South Korea


Sep. 2022 – Dec. 2023

- Level Of Detail Optimization Research Sep. 2023 – Dec. 2023
- P&ID Symbol Detection and Text Recognition Research  Sep. 2022 – Dec. 2023


## Publications

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### International Journal

- Jun-hyung Byun, **Bong-gu Kang**, Du-hwan Mun, Gwang Lee & Hyung-ki Kim (2024). Optimizing Image Format P&ID Recognition: Integrating Symbol and Text Recognition with a Single Backbone Architecture. Computers in Industry, Under Review 

### Domestic Journal

- Dong-won Jeong, **Bong-gu Kang**, Soon-jo Kwon, & Hyung-ki Kim (2023). Backpropagation-Based Optimization Method for Quality Improvement of Simplified Meshes. Korean Journal of Computational Design and Engineering, 28(4), 398-407, 10.7315/CDE.2023.398 

## Additional

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### **ALPS (Algorithm & Programming Study Group)**

Study Group








- Vice President

Jeonju, South Korea

Mar. 2019 – Present

Mar. 2023 – Dec. 2023

### Awards

- JBNUPC 2024, 5<sup>th</sup> Prize  Oct. 2024
- 7<sup>th</sup> SW Programming Competition 2024 (Jeolla-Jeju), 2<sup>nd</sup> Prize  Oct. 2024
- AngelHack Hackseoul Hackathon 2024, Finalist  Aug. 2024
- JBNU SW Univ. AI Online Competition 2024, 2<sup>nd</sup> Prize  Jun. 2024
- JBNU SW Univ. Capstone Design Competition 2024, 3<sup>rd</sup> Prize  Jun. 2024
- JBNU CSAI Software Creation Competition 2023, 3<sup>rd</sup> Prize  Dec. 2023
- JBNU CSE Software Creation Competition 2022, 3<sup>rd</sup> Prize  Dec. 2022

**Languages:** Korean (Native); English (Conversational; TOEIC Speaking IH, Jul. 2024 )

**Certifications:** Engineer Information Processing, Sep. 2024 