

Woojin Park

Ph.D. Student in Civil Engineering (Transportation)
Department of Civil, Structural and Environmental Engineering
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Education

SUNY, University at Buffalo

Buffalo, NY

Ph.D. in Civil Engineering (Transportation Engineering)

Admitted for Fall 2025, deferred to Fall 2026

– Advisor: Austin Valentine Angulo / TRAVL Lab

Chung-Ang University

Seoul, South Korea

M.S. in Civil Engineering (Urban Engineering)

Mar 2023 – Feb 2025

- Dissertation: Pedestrian Perception and Emotional Responses to Autonomous Vehicles – An Integrated Approach with Virtual Reality, Computer Vision, and Vital Signs Analysis
- Honors: Young Scholar Award by Lim Yong-taek Award

Chung-Ang University

Seoul, South Korea

B.S. in Civil Engineering (Urban Design and Studies)

Mar 2017 – Feb 2023

- Dissertation: A Study on Walkability and Gentrification by Opening up Korean Presidential Residence
- Honors: Recognized as an Excellent Graduate by the Korea Institute of Urban Design

Skills & Interests

Programming	Python, C#, C++, Julia
Data & AI	PostgreSQL, PyTorch, TensorFlow
Simulation	VR (Unity, Unreal Engine), Vissim, SUMO
GIS, Design, Stats	ArcGIS, AutoCAD, Sketchup, Adobe Suite, Mplus, SPSS, STATA
Interests	Walkability, Travel behavior, Virtual Reality, Computer Vision

Publications

1. **Park, W.**, Son, D., Im, B., Her, J., Kim, Y.-J., & Kim, S.-N. (2025). Fear of crime revisited: analyzing the effects of urban nighttime illuminance on neural and psychological responses using recorded virtual environments and electroencephalogram data. *Virtual Reality*, 29, 145. doi.org/10.1007/s10055-025-01211-3
2. Son, D., Im, B., Her, J., **Park, W.**, Kang, S. J., & Kim, S. N. (2024). Street lighting environment and fear of crime: a simulated virtual reality experiment. *Virtual Reality*, 29(1), 1–17. doi.org/10.1007/s10055-024-01080-2
3. **Park, W.**, Ko, H., & Kim, S.-N. (2024). An analysis of threshold access time and distance to age-friendly facilities: A comparison between senior and pre-senior populations. *SH Urban Research & Insight*, 14(3), 75–96. [doi:10.26700/shuri.2024.12.14.3.73](https://doi.org/10.26700/shuri.2024.12.14.3.73)

Conference Presentations

- **Park, W.**, & Kim, S.-N. (2024). Pedestrian perception on streets with autonomous vehicles. ACSP 2024, Seattle, WA, USA. [Oral Presentation]

- **Park, W., & Kim, S.-N.** (2024). Analysis of electroencephalogram and fear of crime perception in virtual reality. Urban Design Asia 2024, Seoul, ROK. [Oral Presentation]
- **Park, W., & Kim, S.-N.** (2023). Pedestrian's perception of the street environment with phase in smart mobility. In Proceedings of IEEE Smart World Congress (SWC). Portsmouth, UK. [Oral Presentation]
- **Park, W., & Kim, S.-N.** (2023). Analysis of biometric data in virtual reality. KSCE & KST Joint Conference, Busan, South Korea. [Oral Presentation]

Work Experience

The Seoul Institute Researcher Oct. 2025 – Present

- Analysis of Street Networks for Redevelopment Projects
- A Study on Preliminary Planning for Big Data and AI-driven Urban Planning Support in Seoul

Chung-Ang University Industry-Academic Cooperation Foundation Researcher Mar. 2025

- Development of a Risk Perception and Behavior Prediction Model for Pedestrian Accident-Prone Areas

Department of Civil Engineering, Chung-Ang University Researcher Mar. 2023 – Feb. 2025
Lead Student Researcher*

- Development of Urban Planning Technology using Big Data and AI
- Development of a Pedestrian Environment Assessment System for a Super-Aged Society
- **Development of Strategies for Creating Age-Friendly Cities***
- **Building a Healthy City Model and Promoting Active Design***
- **Research on Pedestrian Environment Changes due to the Introduction of Smart Mobility***
- Evaluation of Child Traffic Safety Design using a Multi-stage VR Simulator

* Denotes projects where I served as lead student researcher.

Architecture & Urban Research Institute (AURI) Assistant Researcher Apr. 2022 – Aug. 2022

- Analysis of Crime Prevention Through Environmental Design (CPTED) using VR

Republic of Korea Air Force Staff Sergeant Jan. 2019 – Nov. 2020

- 15th Special Missions Wing / Seoul Air Base (K-16 AIR BASE)

Honors and Awards

- Young Scholar Award, Master's Thesis | The 3rd Lim Yong-taek Award for Excellent Paper Competition
- Award for Academic Contribution, Master's Thesis | Dept. of Urban Engineering, Chung-Ang University
- Excellent Graduate Award, Urban Design | Urban Design Institute of Korea
- Excellence Award, Undergraduate Graduation Exhibition | Chung-Ang University
- Grand Prize, The 4th University Student Idea & Paper Competition | Incheon Metropolitan City
- Completion of Mentoring Program, Mentee | Architecture & Urban Research Institute (AURI)
- First Prize, Dongjak-gu Transportation Service Area Design | Chung-Ang University Campus Town Landscape Design Contest

Teaching & Other Activities

- Interpreter & Outreach Support for CES 2025, Seoul Business Agency (SBA) (Jan 2025)
- Youth Advisory Board Member (Telecommunications, Mobility), Personal Information Protection Commission (Oct 2024)
- Facilitator, Summit for Democracy 2024 (2024)
- Fellow, KFAS Korea–Nordic Sustainable Development Goals (SDGs) Program (Jan 2024 – Aug 2024)
- Teaching Assistant for GIS (7 credits), Chung–Ang University (Spring 2024)
- Mentor for Undergraduate Researchers, Chung–Ang University (Oct 2023 – Dec 2023)
- Educational Volunteer (Architecture, Transportation), Korea Student Aid Foundation (KOSAF) Talent Donation Camp (Jul 2021 – Aug 2021)

Scholarships

- Graduate Research Scholarship (\$33,000/year), University at Buffalo (Aug 2026 – Present)
- Young Scholar Award (\$1,500), MESH(Mobility Ecology Summit Hour) (Aug 2025)
- Graduate Research Scholarship (\$20,000), Chung–Ang University (Mar 2023 – Feb 2025)
- Senior Scholarship (\$800), Chung–Ang University (Mar 2022 – Jul 2022)
- Academic Improvement Scholarship (\$700), Chung–Ang University (Sep 2021 – Dec 2021)