Sehoon Oh

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SCSI Lab, Department of Civil and Environmental Engineering
Yonsei University, Seoul, Republic of Korea

Education

Sep. 2024–Sep. 2026*	**M.S.** in Civil and Environmental Engineering, Yonsei University, Seoul, Republic of Korea
Mar. 2018–Sep. 2024	**B.S.** in Civil and Environmental Engineering, Yonsei University, Seoul, Republic of Korea (GPA: 3.81/4.3)

Research Experience

Sep. 2024–Present	Research Assistant, SCSI Lab, Yonsei University (Advisor: Prof. Joon Heo)
Aug. 2022–Aug. 2024	Undergraduate Researcher, SCSI Lab, Yonsei University (Advisor: Prof. Joon Heo)

Awards & Honors

2025	SIGSPATIAL GISCUP 2025, Top 5 Award, ACM SIGSPATIAL (Travel Grant $1,000)
2023	SIGSPATIAL GISCUP 2023, Travel Award, ACM SIGSPATIAL (Top 5–8 team; Travel Grant $1,000)
2022 (Spring & Fall)	Academic Excellence Scholarship, Yonsei University (Merit-based)

Publications

G Google Scholar

Journal Articles

J1. **Oh, S.**, Joo, Y., Park, S., Hong, J. & Heo, J. Improving Deep Learning-Based Precipitation Nowcasting Models: Application of Weighted Average Ensemble Methods. *Journal of the Korean Society of Surveying, Geodesy, Photogrammetry and Cartography* **42**, 551–559. https://doi.org/10.7848/ksgpc.2024.42.6.551 (2024).

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*Expected.

J2. Hong, J., Jung, J., **Oh, S.**, Ju, Y. & Heo, J. Analysis of Spatiotemporal Pattern Differences in Passenger Search Routes Using GPS-based Taxi Data. *Journal of the Korean Society of Surveying, Geodesy, Photogrammetry and Cartography* **42,** 561–573. https://doi.org/10.7848/ksgpc.2024.42.6.561 (2024).

Peer-reviewed Conference Proceedings

C1. **Oh, S.**, Joo, Y., Hong, J., Kwon, O., Park, G., Woo, D., Oh, C., Lee, H. R. & Heo, J. *CityCond-BERT: Cross-City Transfer with GEO-BLEU-Sinkhorn Loss for Human Mobility Prediction* in *Proceedings of the 33rd ACM International Conference on Advances in Geographic Information Systems (SIGSPATIAL '25)* (ACM, Minneapolis, MN, USA, Nov. 2025). https://doi.org/10.1145/3748636.3771313.

C2. Kwon, Y., Park, S., Tran, M. L., **Oh, S.** & Heo, J. *Training Data Sensitivity Analysis of Deep Neural Network for Differentiating Construction Laborers with/without Safety Helmets* in *Proceedings of the ASCE International Conference on Computing in Civil Engineering 2023 (i3CE 2023)* (ASCE, Corvallis, OR, USA, 2024), 516–524. https://doi.org/10.1061/9780784485248.062.

Working papers

W1. Ju, S., **Oh, S.**, Jung, J. & Heo, J. *Large-Scale Scan-vs-BIM Analysis of MEP Components Using a Distributed Processing Framework* Manuscript in preparation. 2025.

W2. Ju, S., **Oh, S.**, Jung, J. & Heo, J. *Scalable Scan-vs-BIM Framework for Geometric Quality Assessment of Vertical Columns in Top-Down Construction* Manuscript in preparation. 2025.

Presentations

Posters

P1. Kwon, Y. H., **Oh, S.**, Hong, J. & Heo, J. *Improving Defect Detection in River-Crossing Structures with Ambient Thermal Effects* The 5th International Symposium on COastal Resources and Environment (CORE 2025): Coastal Resilience. Singapore, June 2025.

P2. Ju, S., **Oh, S.** & Heo, J. *Distributed Computing Approach of Scan-vs-BIM Analysis for Construction Quality Monitoring* 4th International Workshop on Point Cloud Processing. Stuttgart, Germany, Feb. 2025.

Teaching

2025 (Spring)	Teaching Assistant (TA), Geospacematics (CEE3419)
2024 (Fall)	Teaching Assistant (TA), Surveying (CEE3202)
2023 (Fall)	Teaching Assistant (TA), Software Programming (YCS1002)

Last updated: October 21, 2025