# Sehoon Oh

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

## Education

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|---|---|
| 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

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| 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

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| 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/10.1061/9780784485105.063`.

## 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

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

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Last updated: October 21, 2025

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