

CHEOLHEE PARK

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<https://parkcheolhee-lab.github.io/testbed/>
<https://github.com/parkcheolhee-lab>

Updated Mar 2026

SUMMARY

Software engineer with a background in architecture and computer science, specializing in generative design and automation for architecture and planning. Experienced in developing geometry processing, spatial data systems, and machine learning applications for design automation, and built deployable engines for feasibility analysis, layout generation, and constraint-aware design exploration.

WORK EXPERIENCE

Software Engineer @ AARO

Mar 2026 – Present

Worked in collaboration with *neoBIM* on the development of generative design and automation technologies for architectural planning and feasibility analysis based on German building regulations and planning codes. Contributed to the implementation of algorithms for automated building layout generation under regulatory, geometric, and site-specific constraints.

Research Intern @ Visual Media Lab, KAIST

Dec 2025 – Feb 2026

Contributed to the development of a multimodal virtual space automation system funded by KOCCA, focusing on converting interior image inputs into coherent 3D scenes using models for image-to-3D reconstruction, object detection, and semantic segmentation.

Software Engineer @ Spacewalk

Jan 2022 – Nov 2025

Conducted research and development to productionize geometric algorithms for real-world architectural applications. Developed PlanNext, an LLM-based office layout automation engine satisfying spatial constraints; rebuilt LBDeveloper, an apartment placement and feasibility analysis service; and advanced and maintained Landbook, a platform for small housing planning exploration and mass studies. Additionally, created Rhino Grasshopper plugins and design tools to support in-house architects at BOUNDLESS Architects.

Design Intern @ SANGJI Architects

Jun 2019 – Jul 2019

Assisted with architectural design development through detailed drawings, 3D visualizations, and presentation materials. Conducted site analysis, regulatory reviews, and feasibility studies, and contributed to competition entries with concept generation and schematic design proposals aligned with project requirements.

Research Intern @ DART lab, KNUT

Mar 2018 – Apr 2019

Assisted with architectural and urban design studies, developing parametric 3D models using Rhino and Grasshopper. Conducted urban data analysis and produced visualizations to support data-driven design decisions in early-stage planning.

EDUCATION

Korea National Open University

Bachelor of Computer Science - BCS

Grade: 4.20 / 4.50

Mar 2025 - Present

Korea National University of Transportation

Bachelor of Architecture - BArch

Grade: 3.84 / 4.50

Mar 2013 - Feb 2021

CERTIFICATION

en-core PLAYDATA

Project-Based Training Program for Data Scientists
Certificate of Completion
May 2021 - Nov 2021

SAMOO Architects & Engineers

SAMOO Design Workshop (SDW 2020)
Certificate of Completion
Aug 2020

Korea Institute of Construction Technology Education

Building Information Modeling Professional Course
Certificate of Completion
Dec 2020 - Mar 2021

Chiangmai University

International Urban Regeneration Workshop
Certificate of Completion
Dec 2018

AWARDS

Korea Iron & Steel Association

Steel Modular Architecture Competition
Encouragement Award
Nov 2020

The Korean Institute of Culture Architecture

Next Generation Cultural Space Competition
Special Selection
Nov 2019

Architectural Institute of Korea

Academic Presentation Conference
Excellence Prize
Nov 2020

Korea Railroad (KORAIL)

Korea Railroad Architecture Competition
Grand Prize (2nd)
Oct 2019

Korea National University of Transportation

Graduation Exhibition
Grand Prize (3rd)
Jun 2020

SKILLS

Machine Learning: Python, PyTorch, TorchGeometric, HuggingFace **Geometry:** Shapely, Three.js, Rhino, Grasshopper, AutoCAD, SketchUp, Autodesk Revit **Frontend:** Javascript, Typescript **Database:** PostgreSQL, PostGIS **DevOps:** AWS S3, EC2, ECR, Docker, Github Actions **Collaboration:** Git, Github, JIRA, Slack **API Development:** FastAPI, Flask **Design:** Adobe Photoshop **AI:** Cursor, Claude Code, Codex, ChatGPT, Gemini