

# Shinyoung Park

Department of Chemistry, KAIST

291 Daehak-ro, Yuseong-gu, Daejeon, 34141, South Korea

## EDUCATION

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### Korea Advanced Institute of Science and Technology (KAIST)

B.S. in Chemistry

- GPA: 4.28/4.30 (Major GPA: 4.30/4.30)

Daejeon, Korea

*Expected August 2025*

## RESEARCH EXPERIENCE

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### Intelligent Chemistry Lab – KAIST Department of Chemistry

Undergraduate researcher with Prof. Woo Youn Kim

- Developed a micro- and macro- $pK_a$  prediction GCN with RDKit and PyTorch Geometric using a manually curated  $pK_a$  dataset, for use in a reaction prediction neural network.
- Contributed to a reaction pathway prediction software by developing an activation energy prediction MPNN with RDKit and PyTorch Geometric.

Daejeon, Korea

*2022 – Present*

## AWARDS AND HONORS

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### National Science & Engineering Scholarship | Ministry of Science and ICT, Korea

*2023 – 2024*

- Awarded for academic excellence

### Dean's List | College of Natural Sciences, KAIST

*Spring 2022, Fall 2022, Spring 2023*

### Dean's List | School of Freshman, KAIST

*Spring 2020*

## TECHNICAL SKILLS

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**Programming and Other Languages:** Python (Most proficient), MATLAB, JavaScript,  $\LaTeX$ , Markdown

**Libraries:** NumPy, SciPy, Matplotlib, RDKit, Plotly, PyTorch, PyTorch Geometric

**Developer Tools:** Git, Bash, SSH, Neovim, VS Code, JupyterLab, GitHub, GitHub Pages

**Chemistry Tools:** Gaussian, ORCA, ChemDraw, Avogadro, PyMOL, Mnova

**Graphic Design Tools:** Adobe Photoshop, Adobe Illustrator

## ACADEMIC SERVICE

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### KAIST Department of Chemistry Student Council

Head of the Internationalization Team

- Provided Korean-English translation of various announcements and materials for international students.

Daejeon, Korea

*2023*

- Worked as an interpreter between Korean and international students in departmental events, with an emphasis on inclusivity.

Member of the Design Team and Academic Affairs Team

2022 – 2023

- Planned and designed promotional materials for activities held by the Student Council, including a pamphlet introducing the various labs of the Department of Chemistry and their research to undergraduate and other prospective students.
- Facilitated *2022 KAIST Chemie Camp*, where high school students country-wide were invited to explore and experience the state-of-the-art chemistry research and education at KAIST.

## PUBLICATIONS

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- (1) Lee, K.; Lee, J.; Park, S.; Kim, W. Y. An efficient automated algorithm for generating input structure for TS searching methods. in preparation.