

Joon Hong Park

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OBJECTIVE

Seeking a research opportunity to apply machine learning and computational techniques to address global challenges while advancing my expertise through hands-on experience.

EDUCATION

Purdue University, West Lafayette, IN

B.S. Computer Science Honors

Dean's List & Semester Honors (Fall 2023, Spring 2024, Fall 2024)

May 2027

GPA: 4.0/4.0

EXPERIENCE

Kihara Lab - Undergraduate Researcher

West Lafayette, IN — May 2024 - Present

- Contributed to the CASP-CAPRI 16 using AlphaFold 3, lab-developed deep learning models, and docking tools, achieving top rankings: 1st in the protein multimer section and 3rd in DNA/RNA sections.
- Enhanced the Kihara Lab Cryo-EM server (em.kiharalab.org) using the Django framework, implementing a mobile-responsive design and streamlining job requests from the frontend to the backend.
- Developed and managed a webserver([go2sumServer](#)) for the LLM based summarizer that generates human-readable summaries for Gene Ontology (GO) term annotation.
- Co-authored book chapters in *Methods in Molecular Biology* and presented research at the PI4D Symposium and Purdue 2024 Fall Undergraduate Research Expo.

The Data Mine of Purdue University - Undergraduate Data Science Researcher

West Lafayette, IN — August 2023 - April 2024

- Led an innovative research project with Bayer to enhance maize yield predictions through machine learning analysis of genotypic markers and environmental features.
- Performed data preprocessing, dimensionality reduction, and model development using Python and its libraries, including scikit-learn, pandas, and numpy.
- Presented findings in a poster presentation, highlighting key insights and model performance.

Purdue University - Undergraduate Teaching Assistant

West Lafayette, IN — July 2024 - Present

- Assisted the following courses: CS Bridge Program (Objected-Oriented Programming), CS 18200 (Discrete Mathematics).
- Conducted review sessions, graded assignments, and held Office Hours.

COURSEWORK

Object-Oriented Programming, Discrete Math, C Programming, Computer Architecture, Data Structures and Algorithms, Systems Programming, Calculus II & III, Linear Algebra, Statistics, Probability

SKILLS

Programming: C/C++, Python, Java, HTML, CSS, JavaScript, Django, Flask, Git, GitHub, Postman

Languages: English (Fluent), Korean (Native), Japanese (Intermediate)

ADDITIONAL LINKS

<https://github.com/parkjoonhong>

<https://www.linkedin.com/in/joon-hong-park-528102243>