## Inhee Kwak

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## **EDUCATION**

#### University of Pennsylvania

Philadelphia, PA

Master of Science in Education in Interdisciplinary Studies in Human Development (GPA: 3.94/4.00)

August 2024

- Scholarship: 2023-24 the Merit Scholarship from Penn GSE, Korean American Scholarship Foundation

### Handong Global University

Pohang, Korea

Bachelor of Science in Computer Engineering (GPA: 3.78/4.50)

August 2022

- Thesis: Analysis of the Relation Between Solar Wind and the Disturbance of the Geomagnetic Field, Advisor: Charmgil-Hong
- Study Abroad at University of Mississippi (Jan 2022-May 2022): Multi-Disciplinary Studies (GPA: 3.92/4.00)
- Scholarship: 2018 Excellent Academic Record, 2019 Handong Alumni Association, 2020-21 Korea Rotary Foundation

## RESEARCH EXPERIENCE

#### Boys Town National Research Hospital

Omaha, NE

Research Assistant/Cognitive Affective NeuroDevelopment in Youth Lab (PI: Giorgia Picci)

Sep 2024 -Jun 2025

- Analyzed MRI and MEG neuroimaging data using software tools (FreeSurfer, Brainstorm, and BESA)
- Lead RA for neuroimaging study of puberty and mental health in autistic youth: Prepared IRB materials,
  coordinated recruitment, and collected a comprehensive battery of behavioral, hormonal assays(hair and saliva), and
  neuroimaging data from autistic youth
- Analyzed behavioral and neuroimaging data to understand the impact of early life stress on neurodevelopment

#### University of Pennsylvania

Philadelphia, PA

Research Assistant/Exploring Academic Resilience in Orchids (PI: Sean Plaskett)

Sep 2023-May 2024

- Interviewed 10 high school students who are at risk of dropping out of school in Sarah Pyle Academy-Wilmington,
  Sarah Pyle Academy-Newark, Newark High School
- Analyzed qualitative data to identify protective factors or processes of academic resilience aimed at reducing the risk of school dropout among those with high psycho-biological sensitivity to their environment by using Otter.ai

### Seoul National University

Seoul, Korea

Research Assistant/Developmental Cognitive Neuroscience Laboratory (PI: Sangah Lee)

Oct 2022-Feb 2023

- Joined experiments to examine 30 children's multi-sensory cognitive learning, episodic memory
- Conducted assessments by using the Wechsler Intelligence Scale for Children (WISC) to 30 children
- Developed a model to predict children's episodic memory development in expectancy violation

### University of Mississippi

Oxford, MS

Research Assistant/Cognition Underlying Behavior Laboratory (PI: Stephanie Miller)

Jan 2022-May 2022

- Led a preschoolers' cognition training experiment by applying mindfulness protocols at Lafayette School
- Recruited 50 children to participate by offering craft activities in Mississippi Day and Oxford's farmers market

#### Handong Global University

Pohang, Korea

Research Assistant/Handong Artificial Intelligence Laboratory(PI: Charmgil Hong)

Mar~2019--Dec~2021

- Implemented artificial neural networks to predict the mechanical properties of stamping processes
- Created machine learning models to detect factors affecting pancreatic cancer incidence
- Trained 40 lab members to gain the knowledge of developing prediction models by using Python
- Designed a Search Engine about the Korean reunification through the analysis of web scraping

## Publication

1. **K. Inhee**, P. Jihee, and H. Charmgil, "Analysis of the Relation Between Solar Wind and the Disturbance of the Geomagnetic Field", *Korea Computer Congress(KCC)*, *KCC 2020 Korea Computer Science Conference Papers*, July 2020, 1,581 - 1,583 (3 pages)

## PRESENTATION

- K. Inhee, "Understanding ADHD in Classroom: Insights from Educators" the 1st Penn GSE Annual Student Showcase, May 2024
- A. Suhyun, K. Inhee, "Graph Neural Networks to project the Dehydrogenated Enthalpy of Liquid Organic Hydrogen Carriers(LOHC)" HGU 2021 Capstone Festival Poster Presentation, December 2021
- 3. **K. Inhee**, P. Jihee, and H. Charmgil, "Analysis of the Relation Between Solar Wind and the Disturbance of the Geomagnetic Field", Korea Computer Congress (KCC), KCC 2020 Korea Computer Science Conference Papers, July 2020

## SCHOLARSHIP AND GRANT

- 2023-24 Merit Scholarship from University of Pennsylvania GSE
- 2023-24 KASF(Korean American Scholarship Foundation) Scholarship
- 2023-24 Ok Hanheum Scholarship
- 2025-26 STEM Sprouts Grant from the Glenn W. Bailey Foundation

## WORK EXPERIENCE

## **Applied Computing Foundation**

(Remote) San Francisco, CA

Project Manager

Jun 2021–Present

- Designed a curriculum and created educational materials for Web programming, Python, and Artificial Intelligence courses
- Wrote grants for projects, which offer STEM education for underrepresented populations (lack of opportunities)

People Space

Intern

Irvine, CA

Jan 2020 – Feb 2020

- Built a biz machine by utilizing 3D printers and employed Python to operate their motors
  - Learned artificial intelligence model development and practiced creating real-data models twenty hours a week

## TEACHING EXPERIENCE

#### Teaching Korean

Seoul, Korea

Refugee Pnan, Jang-an Children center

Jan 2022-May 2022

- Taught Korean by reading eleven Korean books and instructing activities for elementary school students
- Led a book club discussion for ten middle and high school students

#### Teaching Programming Languages

Pohang, Korea

Pohang and Daebang High School, Pohang City Disabled Welfare Center, Nepal Living Stone Academy

2018-2020

- Trained 90 students (fifty Korean high school students, twenty disabled Korean students, and twenty Nepali middle school students) about Python, Arduino, and App Inventor
- Assigned projects such as making websites and games for students to apply the language they learned

#### Teaching Assistant in Physics and Open Source Software

Pohang, Korea

Handong Global University

Mar 2019–May 2020

- $\,-\,$  Tutored college students outside of class for three hours a week, totaling 40 hours a semester
- Graded sixty students' assignments and exams to give feedback for their future study

# Korea Hydro Nuclear Power Company Global Volunteer Program NaCopchi, Beneshova, and Okrzyshki School

Třebíč, Czech Republic

Jun 2019

- Instructed 60 students to make solar-cell cars and scientific toys
- Facilitated a Korean traditional cooking class at Ibanchiche Deaf School Orphanage

## SKILL

- Proficient In: R, Matlab, Python, Java, C
- Exposure To: HTML, JavaScript, CSS, Tableau, C++, SQL, SPM
- Language: English (Advanced), Korean (Native)