# Minseo Kim

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## **EDUCATION**

## The Pennsylvania State University

University Park, PA

Bachelor of Science in Computational Data Sciences, Minor in Mathematics, GPA: 3.87/4.0

Expected May 2025

• The President Walker Award, 2022: Scholastic award for academic excellence

## **SKILLS**

Languages and Frameworks: Python, R, SQL, Scala, Java, Git, JavaScript, Express.js, Korean

Tools: NumPy, Pandas, Power BI, Excel, Scikit-learn, Apache Spark, Node.js, Azure Databricks, Figma, AWS, Shakudo, Hadoop

## **WORK EXPERIENCE**

## **Penn State Nittany AI Alliance**

State College, PA

August 2024 – Present

Data Scientist & Co-Team Lead Intern

- Co-lead a team to enhance the Penn State Nittany AI Challenge by using past challenge data and applying LLM techniques
- Enhance outreach efforts by analyzing participant data and creating visualizations using Excel and Python (NumPy, Pandas), exploring correlations between the diversity of majors and winners
- Improve the prototype feedback process by creating a judge tool that integrates the Azure Generative AI API with Python, allowing an AI agent to critique submissions and suggest changes

Data Scientist Intern

January 2024 – April 2024

- Developed a machine learning model to predict ticket sales for Penn State Bryce Jordan Center, using Python and Scikit-learn, leveraging NumPy and Pandas for data analysis, resulting in a successful presentation and recognition
- Improved the ML model's performance and achieved an R-squared value of 0.86 using XGBoost and regression, through data modification and hyperparameter tuning

CentralReach

State College, PA (Remote)

*May 2024 – August 2024* 

Generative AI Engineer Intern

- Optimized a data pipeline to process HTML documents using JavaScript and Node.js, reducing in average processing time from 60 seconds to 1 second, resulting in a 98% increase in efficiency
- Integrated a generative AI API and AWS into the code and deployed a microservices architecture Shakuduo cloud service, supporting a high-value software project
- Managed a database and ensured quality assurance by executing SQL queries, working directly with the head of the AI team and fellow software engineers in an agile environment

## **Navy Federal Credit Union**

State College, PA (Remote)

*May 2023 – August 2023* 

Data Visualization Analyst Intern

- Created an interactive data visualization report on Fintech Usage and a user-friendly menu page in Power BI, utilizing data from Excel and Azure Databricks
- Conducted thorough data analysis, aiming to comprehend the dependencies of tables in a relational database and choose appropriate data visualizations for the report

#### **PROJECTS**

## Penn State Advanced Vehicle Team (Website Link)

Perception Team Member

January 2025 –Present

• Detect lane and limit lines using lidar and stereo cameras, develop filtering algorithms to handle GNSS attenuation, and collaborate with other teams to optimize autonomous vehicle navigation for the SAE AutoDrive Challenge

## LionFoodTracker: An app that analyzes food waste at universities (GitHub Link)

Team Leader

*January 2023 – April 2023* 

• Led a team to achieve Top 20 ranking in the idea phase of the Penn State Nittany AI Challenge, receiving a \$500 prize, and earned the Dave Hall Award in the Bardusch Family IdeaMakers Challenge

## **INVOLVEMENT & LEADERSHIP**

## **Penn State Residence Life**

Resident Assistant

*June* 2022 – *August* 2024

• Created an inclusive and safe community by overseeing 60+ students, hosting floor meetings, and managing conflicts, earning the LLC Engagement Award for exceptional leadership in engaging with IST residents

## Penn State College of Information Science & Technology and College of Engineering

Undergraduate Teaching Assistant

August 2022 – December 2023

• Mentored 60 students in Python and Java Programming classes by holding weekly review sessions and office hours twice a week while assisting professors and graduate teaching assistants