

# Jaewon Cho

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## EDUCATION

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**Purdue University**, West Lafayette, IN

Expected May 2025

BS in Computer Engineering / Dean's List and Semester Honors

Overall GPA: 3.37

**Coursework:** Python in data science , Microprocessor Systems and interfacing, Data structure and Algorithm, Signals and Systems, Advanced C language, Digital System design, System programming, Building circuit, Application of Semiconductor

## EXPERIENCE

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**SAS ORSOL Team**

West Lafayette, IN

*Undergraduate Research assistant / **Synthetic Data Team Lead***

Jan 2024 - Current

- Predicted the demand for electric vehicle chargers in certain regions by using AI models to analyze traffic patterns and estimate charging needs.
- Organized the data necessary for work through python and make forecasting model with SAS studio.
- Used the timeGAN model to recreate the given time series dataset, generating high-accuracy synthetic data suitable for actual predictions.

**Samsung Electronics**

Suwon, South Korea

*Software Engineer Intern*

June 2024 - August 2024

- Utilized Node.js to develop and refine a project, building the server with Express.js and managing the database with SQLite.
- Developed a crawler to identify PWA support and store relevant data in a database, validating the functionality and PWA compliance of specific URLs.
- Leveraged packages such as Axios, Puppeteer, etc. to assess URL validity and PWA support, categorizing the results and storing them in the database.

**Maum AI**

Pangyo, South Korea

*Software Engineer*

May 2023 - June 2023

- Worked at an AI development company to make a regular expression for AI chat bot development with Python.
- Charge of creating functions that could derive various information and was responsible for testing code working.
- Participated on development of AI chat bots that recommend information for travel, such as famous natural environments, food, and amusement parks in a specific city, and create regular expression code that made it possible to print specific phrases in specific situations.
- Worked as a member of the team project and worked more efficiently through smooth communication between team leaders and team members.

## PROJECTS

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**SAS Curiosity Cup** / SAS Studio, Python

*Secured 2nd place in Data Analysis, competing against 107 teams from 19 countries.*

- Participated in the SAS Curiosity Cup, a competition organized by the SAS Institute, focusing on data preparation and analysis.
- Conducted comprehensive research to predict electric vehicle charging demand, applying advanced data analysis and modeling techniques.
- Authored detailed papers documenting methodologies, findings, and predictions for the competition, adhering to the required standards and formats.

**2024 Spring Undergraduate Research Conference**

*Undergraduate Author / Presenter*

- Using traffic flow analysis and machine learning, led a study predicting EV charging station demand, achieving predictive accuracy with a WMAPE of 10.14
- To infer EV demand without relying on inaccessible station-specific data, developed a new predictive model using stack neural networks and time series data.
- Presents Study Results at Undergraduate Research Conference 2024 Spring, Proposes Real-Time Pricing Strategies to Optimize Grid Efficiency and Reduce Congestion at EV Charging Stations

**BOILER TIME** / Flutter, Dart, Google Firebase

*Project Link:* <https://github.com/hk123002/Boiler-Time.git>

- Designed and developed the calendar-featured UI scheduling system that allows students to effectively manage.
- Developed community features that allow students to be actively involved in the community through posting and commenting anonymously on various categories.
- Integrated and organized the informative pages such as library operation times, dining court menus, bus schedules, and academic schedules with Firebase.

**Fire-detecting Infrared Rescue and Evacuation system (FIRE)**

*Team Leader*

- Proposed digital solutions for sustainability, focusing on creative problem-solving.
- Designed a fire safety system with cloud-based info sharing, PBI sensors, and thermoelectric elements.

## SKILLS

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- **Languages:** : C, C++, Python, Verilog, Javascript, Dart, MATLAB, Assembly, R, Java
- **Technology:** Linux, Flutter, Android Studio, Firebase, Git, node.js, SAS Studio.