

CV



Ji in Kim

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SUMMARY

I graduated with a degree in Biomedical Engineering, with a solid foundation in **AI and data science**. I have hands-on experience in **machine learning** and **deep learning**, working with a variety of data types including images, text, and structured datasets.

At an AI-powered wearable healthcare startup, I directly contributed to **data analysis, annotation, and management**, gaining practical experience with real-world medical data. I've also led **end-to-end AI solution development** in multiple hackathons and competitions—taking charge of everything from goal setting and model design to performance optimization and final delivery.

Known for my strong communication, teamwork, and creative problem-solving, I've applied my technical skills to real-world **IT projects**—including **web and app development** as well as **AI implementation**. These experiences have taught me how to harness digital tools to streamline workflows, enable data-driven decisions, and deliver human-centered innovation in business environments.

EDUCATION

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- | | |
|---------------------------|--|
| Mar 2020
~ Feb
2025 | Hankuk University of Foreign Studies <ul style="list-style-type: none">• Bachelor of Science in Biomedical Engineering, Minor in Business• GPA: 3.48 / 4.5 |
| Jul 2022 | University of Guam (UOG) <ul style="list-style-type: none">• Completed Language & Industrial Culture Class (Summer 2022, 3 credits) |

Skills (Core Competencies)

- **Programming Languages:** Python, R, MATLAB, C, JavaScript
- **Machine Learning & Deep Learning:** Classification, Regression, PCA, including Object Detection, CNN, and RNN (Framework : Pytorch)
- **AI Model Development:** EDA, Data Preprocessing, Modeling, Fine-tuning, Optimization
- **Data Analysis & Visualization:** SQL, Tableau, Power BI, Data Wrangling, Statistical Analysis
- **Web Development:** CSS3, HTML5, Node.js, Firebase
- **Software Tools:** Microsoft Office Suite (Word, Excel, PowerPoint)

WORK EXPERIENCE

Jan 2024 - **Freelancer at Wellysis Corporation - EB(Data) Team | Korea**

Mar 2025 *(Contract extension)

- **Responsibilities:** Ensured data quality, conducted annotation for machine learning models, and performed data and statistical analysis.

Jul 2023 - **Intern at Wellysis Corporation - Strategic Marketing & EB(Data) Team | Korea**

Dec 2023

- Curated and preprocessed ECG data to enhance accuracy in AI-based health diagnostics.
- Identified data inconsistencies across hospitals, company systems, and clients, and established a monitoring process that improved data flow and reduced transmission errors.
- Analyzed edge-case errors in ECG readings and compiled detailed reports to support AI algorithm refinement and performance improvement.
- Conducted structured data analysis to detect operational bottlenecks and proposed actionable solutions, improving service efficiency.
- Collaborated on a B2B healthcare planning project with a pharmaceutical client, contributing insights to streamline workflow and enhance service delivery.
- Delivered customized reports for stakeholders, supporting business decisions with clear, data-driven insights.

AWARDS

Excellence Award

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| Dec 2, 2023 | 2023 Data Creator Camp Contest
Awarded the NIA Director's Award by the K-ICT Big Data Center for developing a high-performance classifier for K-food image categorization. |
| Nov 30, 2022 | 2022 Large-scale OCR AI Hackathon
Recognized for developing an advanced OCR AI model, achieving high accuracy in large-scale text recognition tasks. |
| Nov 26, 2022 | 2022 Data Creator Camp Contest
Received the NIA Director's Award from the K-ICT Big Data Center for creating an AI illustration search service designed to assist designers in locating relevant visuals. |
| Aug 10, 2022 | Business Analysis Contest
Awarded for insightful business analysis in the "Blue Ladder Project," focusing on strategic insights and data-driven solutions. |

Completion of Finals

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|--------------|---|
| Oct 13, 2023 | 2023 GBT Hackathon Challenge
Developed an AI model for real-time assessment of operational oil in construction equipment and planned sensor data utilization, hosted by Hyundai Site Solution, HUFS, and Dacon. |
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PROJECT

1. Enhanced Human Detection Using RGB and FIR Integration

Graduation Thesis Project, Biomedical Engineering [2024]

- **Purpose:** Developed a UAV-based model to improve human detection in disaster scenarios by integrating RGB and FIR images for enhanced accuracy in complex environments.
- **Tech Stack:** YOLO, Multispectral Imaging
- **Outcome:** Enhanced image alignment accuracy, leading to improved detection performance in challenging conditions.

2. K-Food Image Classification

Data Creator Camp Contest, December 2023

- **Purpose:** Built a multi-class classifier for categorizing K-food images.
- **Tech Stack:** EDA, Data Augmentation, Ensemble Techniques, Performance Tuning

- **Outcome:** Improved model performance through data experimentation and tuning, achieving high classification accuracy.

3. AI-powered Illustration Search Tool for Designers

Data Creator Camp Contest, November 2022

- **Purpose:** Developed a search tool to assist designers in finding relevant sketch images by filtering duplicates and real images.
- **Tech Stack:** CNN, YoloV5, MD5 Hashing
- **Outcome:** Achieved optimized multi-class classification, addressing class imbalance through targeted sampling techniques.

4. OCR Model for the Visually Impaired

Class Project, BME Artificial Intelligence [Spring 2023]

- **Purpose:** Created a model to read text on product packaging and identify harmful or desired ingredients for visually impaired users.
- **Tech Stack:** CRNN, Text Recognition, Data Preprocessing
- **Outcome:** Successfully extracted text with high accuracy, enhancing accessibility for users.

5. ASL Translation Model for the Hard of Hearing

Class Project, BME Artificial Intelligence [Fall 2022]

- **Purpose:** Built a model to recognize ASL alphabet letters based on hand shapes.
- **Tech Stack:** ResNeXt50, CNN, Parameter Optimization
- **Outcome:** Provided reliable ASL alphabet recognition, using custom and publicly available datasets to optimize model accuracy.

6. Seoul Subway Congestion Prediction and Visualization

Class Project, Data Mining in Bioinformatics [Spring 2022]

- **Purpose:** Visualized and predicted congestion patterns in the Seoul subway system by station and time.
- **Tech Stack:** R, Regression Analysis, Data Visualization
- **Outcome:** Developed a congestion map, offering insights into peak and low-congestion times for Seoul subway users.

7. Real-time Operational Oil Condition Assessment for Construction Equipment

GBT Hackathon Challenge, October 2023

- **Purpose:** Developed an AI model to assess the condition of operational oil in construction equipment in real time, aiming to improve maintenance efficiency and safety on construction sites.
- **Tech Stack:** Random Forest, Feature Selection, Label Encoding, Binary Classification (Normal vs. Abnormal)
- **Outcome:** Achieved top 10 placement in finals, successfully showcasing the model's potential for real-time monitoring and predictive maintenance applications.