Ji Yoon Oh

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EDUCATION

Seoul National University — **Seoul, KR**
M.S. in Business Administration (Management Information Systems) — **2026 - Present**
- Graduate School of Business, IDSLab, Advised by Prof. Jinsoo Park
- GPA: 4.10/4.3

Sungshin Women's University — **Seoul, KR**
B.S. in AI Convergence — **2021 - 2025**
- Overall GPA: 4.09/4.5, Major GPA of 4.09/4.5

RESEARCH EXPERIENCE

Sungshin Women's University AIDEN Lab — **Sungshin Women's University**
Undergraduate Researcher, Advised by Prof. Jangmin Oh — **Jun. 2024 – Dec.2025**
- First author of a manuscript on predicting semantic consistency between Instagram images and Korean hashtags (under revision), extended from my UROP study
- Participated in Deep Learning-based Diffusion Model research; learned the theory and application of the Diffusion Model based on Hugging Face's Diffusion Course; practiced model implementation and diffuser library; conducted in-depth weekly review sessions and technical discussions
- Reviewed video generation models and latest research direction; compared structure and performance of latest text-to-video generation models, such as Lumiere and Stable Video Diffusion; reviewed and presented on ICCV 2023 paper DiT: Scalable Diffusion Models with Transformers; analyzed the latest LLM APIs and technology updates, such as OpenAI, Gemini 2.0, etc.; participated and presented at weekly study sessions

Sungkyunkwan University NLPLAB — **Sungkyunkwan University**
Summer Intern, Advised by Prof. Youngjoong Ko — **July. 2025 – Aug. 2025**
- Curated and validated multilingual QA datasets: verified and refined Korean-English passage translations, labeled passaged-question relevance pairs, and improved data quality
- Engaged in reinforcement learning study and weekly seminars: reviewed research on RAG and generation methods(Generative Retrieval, Chain-of-Thought, etc..) and studied RL techniques (PPO, DPO, GRPO, RLHF) with a focus on NLP applications
- Completed Topic Modeling Assignments through KoWiki and diagloue datasets, implementing LDA and BERTopic pipelines, evaluating coherence / diversity metrics, and analyzing deep learning extensions of LDA such as Contextualized Topic Models (CTM)

Undergraduate Research Opportunity Program (UROP) — **Sungshin Women's University**
Individual Essay — **Sep. 2024 - Jan. 2025**
- Designed a deep learning-based multimodal classification model that can predict the association between images and hastags in Instagram posts
- Conducted comparative experiments using pre-trained models, like CLIP or Ko-CLIP, to compare three strategies: similarity-based classification, classifier-only learning, and overall fine-tuning
- Found that applying similarity-based classification improved model performance (accuracy 9%) by 31%
- Analyzed the limitations of pre-learning characteristics and data alignment quality of Ko-CLIP and demonstrated the possibility of performance improvement through fine-tuning
- Reviewed the pros and cons of threshold-based classification and fine-tuning strategies and their applicability

WORK EXPERIENCE

Ssanyong Lift — **Seoul, KR**
AI Intern — **June. 2024 - Dec. 2024**
- Built a prototype internal CS chatbot for equipment troubleshooting: organized PDF manuals and Naver TalkTalk inquiries into JSONL training data, fine-tuned GPT-4o-mini, and served it with Flask
- Traced hallucinations and inconsistent answers to data-readiness issues (fragmented documents, similar product names); the chatbot was not deployed because its answers were not reliable enough
- Created an AI-assisted blog-writing guideline for the marketing team (keyword research, structured writing, ChatGPT and Wrtn prompts, human review), reducing writing time per post from about 2 hours to 1 hour

- Gained insight into the unique challenges of SMEs, where AI adoption has immediate and significant impact compared to large enterprise.

PROJECT EXPERIENCE

VIZY: K-Beauty AI Agent (Generative AI Course Project) **Seoul, KR**

AI/RAG Developer & Front-end Developer **Sep. 2025 – Dec. 2025**

- Built an LLM-based Top-3 product recommender (LLaMA 3, then OpenAI API) with JSON-only output and a reason for each pick
- Developed a RAG agent that classifies user intent, parses free-form preferences, retrieves products with OpenAI embeddings and pgvector, and re-ranks them by similarity and user profile
- Moved parsing and explanations from LLaMA 3 to the OpenAI API with JSON-only output and fallbacks after LLaMA 3 output proved unstable; restricted answers to candidate products to prevent hallucinated items
- Added per-user conversation memory and DuckDuckGo search for trend questions; built the chatbot and recommendation screens in React and generated synthetic reviews and personal-color data for the knowledge base

Capstone Design Project : Smart Travel Expense App "Ezpage" **Seoul, KR**

Team Leader(PM) & AI Model Developer **March. 2025 – June. 2025**

- Developed ezpage, a travel expense management app designed to help international travelers understand local prices and make appropriated payments using OCR and currency recognition; led the team as project manager overseeing planning and execution
- Designed and implemented the *Global Money Scanner*, a vision-based AI system that detects currency types and denominations from user-captured images and converts the total into KRW using real-time exchange rates
- Collected and augmented datasets of USD and JPY bills and coins with techniques such as rotation and brightness adjustments to enhance model robustness
- Annotated training data in YOLO format and fine-tuned a YOLOv8 model using the Ultralytics framework, addressing class imbalance and optimizing performance with mAP-based monitoring
- Integrated the model into the mobile application to support visual guidance for payments and automatic logging of expenses during travel

Obfuscated Korean Review Restoration AI Competition (Dacon) **Seoul, KR**

Feb. 2025

- Participated in a national NLP competition focused on restoring Korean reviews obfuscated at the Jamo (character) level
- Conducted benchmarking of Korean PLMs, including LLaMA and pko-t5-base, achieving an initial accuracy of 0.71
- Improved performance to 0.74 by applying data augmentation techniques and designing a two-stage decoding architecture
- Optimized model performance through systematic tuning of input representation, decoding flow, and hyperparameters
- Experimentally validated the impact of Jamo-level prerprocessing on restoration accuracy in Korean language contexts

Camchelin: Deep Learning-based Review Analysis and Sentence Generation System **Seoul, KR**

AI Developer **Sep. 2024 – Feb. 2025**

- Utilized platform and user review data to implement a function that can analyze positive/negative feedback and extract keywords about stores
- Fine-tuned Hugging Face's pko-t5-base model to extract keywords from review text and classify as positive/negative
- Classified extracted keywords into 5 categories: taste, service, atmosphere, sanitation, and cost-effectiveness; generated representative sentences for each category using OpenAI's fine-tuned GPT model
- Responsible for model learning, performance evaluation, and results analysis throughout the project; collaborated with team members to improve system completeness

Momentum: Goal Segmentation-based Self-Management Support App **Seoul, KR**

Front-end Member **Apr. 2024 – Feb. 2025**

- Awarded 2nd place in the 1st Codeit PowerBoost Demo Day
- Participated in the development of Momentum, a goal management service that helps users segment and manage goals to address issues with unrealistic goal setting
- Enabled app services that allow users to manage annual goals by breaking them down into weekly/daily moments, check progress in checklist format, and provide a feed and friend management functions to share achievements

- Utilized React to implement the initial overall styling and the “Moment Creation Page” UI as the project’s Front-end Developer; responsible for data processing and automation function connection through API interworking
- Linked a GPT-based goal recommendation API to recommend detailed goals or “Moments” based on user input goals

MediMate: OCR-based Drug Expiration Date Management App **Seoul, KR**

Team Member **Jun. 2024 – Aug. 2024**

- Awarded 2nd place in Sungshin Women’s University’s AI Convergence Department IT Competition for upperclassmen
- Participated in the development of an application that manages the expiration date of drugs
- Responsible for React Native-based front-end development; implemented main page, medication scanning, medication list sorting/search, and other key UI/UX functions
- Linked Naver’s CLOVA OCR API to develop a function that automatically extracts drug names, expiration dates, and dosage information from drug packaging and prescriptions

ToBeMom: Health Monitoring and Information Sharing for Pregnant Women **Seoul, KR**

Front-end Team Memeber **Dec. 2023 – Feb. 2024**

- Participated in the Google Solution Challenge 2024 with ‘ToBeMom’ - an app to help pregnant women check their health condition and take precautions in order to address the issues with high miscarriage and stillbirth rates globally
- Responsible for Android Studio and Kotlin-based front-end development; implemented UI screen configuration and key function implementation
- Linked Google’s Gemini API to provide “Dr. Gemini”, a chatbot that could guide users to nearby obstetrics and gynecology locations via Google Maps API, text-to-speech and voice-to-text conversion functions for users with low literacy, etc.
- Allowed users to perform comprehensive pregnancy management by creating custom health checklists by pregnancy week, diagnosing health conditions, recording weight/symptoms in a diary, searching for hospitals, consulting chatbots, etc.

HONORS & SCHOLARSHIPS

- **Feb. 2026** - Undergraduate Academic Excellence Scholarship (Year 4, 2nd Semester)
- **Feb. 2025 -** 1st Annual Codeit PowerBoost Demo Day, 2nd Place
- **Feb. 2025** - UROP Research Activity Scholarship
- **Feb. 2025 -** Undergraduate Academic Excellence Scholarship (Year 3, 2nd Semester)
- **Aug. 2024 -** AI Convergence Department IT Competition, 2nd Place in the Upperclassmen Division
- **Aug. 2024 -** Undergraduate Academic Excellence Scholarship (Year 3, 1st Semester)

ADDITIONAL SKILLS

Languages	Korean, English (TOEIC 900, TEPS 342)
Programming	Python, JavaScript, TypeScript, Kotlin, HTML/CSS
AI / ML	PyTorch, Hugging Face Transformers, YOLOv8, OpenAI & Gemini APIs, pgvector
Frameworks	React, React Native, FastAPI, Flask
Tools	Git, Docker, Google Colab, VS Code, Figma