

Jounghee Kim

AI Engineer · LLM Agents

onlyl4youu@gmail.com linkedin.com/in/joungheekim github.com/JoungheeKim joungheekim.github.io
Seoul, Republic of Korea

Summary

AI Engineer who automates judgment work with LLM agents. At Toss, built a browser-use merchant review agent that saved 20 FTE in card-company review, and an inspection automation platform in which AI refines the prompts, now used by 10+ departments. At SK Telecom, built A-dot's scheduling agent (handling 67% of schedule registrations) plus movie-booking and main agents. Background in speech/NLP research (Interspeech 2022) and financial AI.

Experience

Viva Republica Inc. (Toss) | AI Product Team · AI Engineer Dec 2025 – Present

- Automate judgment work such as merchant review and inspection with LLM agents
- Key projects: Merchant Review Automation (**20 FTE saved** in card-company review), Inspection Automation Platform (adopted by **10+ departments**), Ad Review Agent (**+25 pp** average accuracy in a single-policy pilot)

SK Telecom | AI Agent Department · Manager Apr 2022 – Oct 2025

- Designed and built A-dot and T Membership conversational agents: **67%** of schedule registrations via the agent, function-call success **60→80%**, movie booking conversion **12%**
- Raised the AI auto-answer rate on duplicate questions **16→31%** in Cupid, a location-based community, by recommending answers to similar questions

Hyundai Motor Company | AIR Lab · Senior Research Engineer Feb 2022 – Apr 2022

- Improved in-car speech recognition by decoding with a dialogue-aware language model

SK Inc. C&C (now SK AX) | Finance Department · Engineer Jan 2015 – Mar 2020

- Built KDB's FIDO, remote ID verification and Smart OTP services; ran its banking systems
- Built financial AI models: corporate-distress early warning (piloted at KDB), robo-advisor, news-based market prediction

Education

Korea University

M.S. in Industrial Management Engineering · GPA 4.31/4.5 Mar 2020 – Feb 2022

- Research: Natural Language Processing, Speech Recognition
- DSBA Lab (Advisor: Pilsung Kang)

B.S. in Industrial Management Engineering · GPA 3.63/4.5 Mar 2009 – Feb 2015

Publications

Jounghee Kim, Pilsung Kang (2022). **"K-Wav2vec 2.0: Automatic Speech Recognition based on Joint Decoding of Graphemes and Syllables."** Proc. Interspeech 2022, pp. 4945–4949. [\[paper\]](#) [\[code\]](#)

Heejeong Choi, Donghwa Kim, **Jounghee Kim**, Jina Kim, Pilsung Kang (2022). **"Explainable anomaly detection framework for predictive maintenance in manufacturing systems."** Applied Soft Computing, 125, 109147. [\[paper\]](#)

Jounghee Kim, Pilsung Kang (2021). **"Multi-modal Korean Emotion Recognition with Consistency Regularization."** Journal of the Korean Institute of Industrial Engineers, 47(6), 549–559. — Best Master's Thesis Award, KIIIE [\[paper\]](#) [\[code\]](#)

Junghoon Lee, **Jounghee Kim**, Pilsung Kang (2021). **"Back-Translated Task Adaptive Pretraining: Improving Accuracy and Robustness on Text Classification."** arXiv preprint 2107.10474. [\[paper\]](#)

Skills

LLM & Agents	LangGraph, Claude Agent SDK, OpenAI · Azure OpenAI (Fine-tuning, Function Calling), RAG, Plan-and-Execute, browser-use (Agentic Browser Automation), LLM-as-a-Judge
ML / Deep Learning	PyTorch, Hugging Face Transformers, Fairseq, ESPnet, scikit-learn
Serving & Data	FastAPI, Gradio, Flask, Airflow, Elasticsearch, Vector DB, Datadog
Programming & Infra	Python, Java, JavaScript, SQL, Docker, Git, AWS, Azure
Languages	Korean (Native), English (Fluent)

Selected Projects

AI Agents

Merchant Review Automation | Toss May 2026 – Present

- Built a browser-use review agent that browses merchant websites like a human reviewer and collects business details, terms and the payment path
- Automated card-company merchant review (payment-path capture), saving 20 FTE, and applied the same agent to Toss Pay merchant review (an 8-person workload)

Inspection Automation Platform | Toss Jun 2026 – Present

- Built an inspection automation platform where AI refines prompts from data and the agent's structure and shows users where the data conflicts with the current direction, making the improvement cycle easy
- Automated the in-between steps of building an inspection agent with AI features (requirement drafting, agent drafts, versioned experiments); used as a shared inspection module by 10+ departments

Ad Review Agent | Toss

Mar 2026 – Jun 2026

- Built an ad review agent that turns a short ad policy into a review guideline with criteria, boundaries and examples
- Added AI refinement that finds where the guideline disagrees with reviewers and revises it, raising average accuracy by 25 pp on the pilot policy

A-dot Scheduling Agent | SK Telecom

Apr 2025 – Oct 2025

- Designed and built an agent that handles multi-intent scheduling requests by splitting them into sub-tasks and re-planning from the results (Plan-and-Execute + Refine)
- 67% of schedule registrations came through the agent (66K of 98K) [\[news\]](#)

A-dot Main Agent | SK Telecom

Apr 2024 – Dec 2024

- Designed the training-data schema (multi-turn, function calling) and fine-tuned and evaluated GPT models to raise function-call accuracy and multi-turn quality
- Raised function-call success across 17 functions from 60% to 80% through data design, fine-tuning and prompt work [\[news\]](#)

Movie Booking Agent (T Membership & A-dot) | SK Telecom

Jan 2024 – Dec 2024

- Designed a UI-integrated agent that lets users move between chat and buttons to find and book movies, feeding the results of UI actions into the LLM workflow
- 12% booking conversion on T Membership (completed bookings / visitors); 110K cumulative users of the movie-booking agent [\[news\]](#)

Machine Learning · NLP · Speech**Cupid: Answer Recommendation for Similar Questions | SK Telecom**

May 2022 – Dec 2023

- Built a pipeline that recommends answers already given to similar questions (location/topic filtering, BM25 + embedding search, answer re-ranking)
- Raised the AI auto-answer rate for duplicate questions from 16% to 31% and positive feedback from 38% to 57% [\[news\]](#)

In-vehicle & Mobile Speech Recognition

Feb 2022 – Apr 2022

Hyundai Motor Company AIR Lab

- Combined ASR decoding with a generative LM (KoGPT) trained on spoken-dialogue data to make up for accuracy lost to in-car noise

Open-Domain Korean Question Answering

Apr 2020 – Jul 2020

Korea University (graduate project)

- Built a Korean open-domain QA system and web demo in which a BERT-based model finds the answer span in documents gathered from search engines [\[code\]](#) [\[video\]](#)

Predictive Maintenance for Chemical Processes

Jan 2020 – Sep 2021

Korea Univ. DSBA × Hanwha Systems (ICT) industry-academia project

- Built a predictive-maintenance system that flags equipment warning signs before failures and shows similar past patterns as evidence (RNN auto-encoder, LSH) [\[paper\]](#) [\[code\]](#)

Market Caster: News-based Market Prediction | SK C&C

Jul 2019 – Mar 2020

- Built models that predict market moves from news-derived financial events combined with price data (hierarchical attention, ensemble) [\[video\]](#)

Portfolio Robo-advisor | SK C&C

Jul 2018 – Feb 2019

- Built a reinforcement-learning (deep Q-learning) trader that rebalances a portfolio accounting for price moves and trading costs; applied to a paper-trading system

Early Warning for Corporate Distress | SK C&C (client KDB)

Jan 2018 – Jul 2018

- Built corporate-distress indices from news events and industry sentiment; piloted in KDB's corporate credit-risk assessment system

Banking System Integration**KDB E-Finance Services** | SK C&C (client KDB)

Jan 2016 – Mar 2017

- Built app interfaces, web screens and business logic for FIDO fingerprint authentication, remote ID verification and Smart OTP, introduced after regulatory change

Awards**1st Prize** | SK AI Challenge

Dec 2022

- Document summarization for faster decision-making (fine-tuned T5)

1st Prize | KIIE Master's Thesis Competition

Nov 2021

- Multi-modal Korean emotion recognition with consistency regularization

Excellence Award (KPC Award) | 2nd Factory Hack Korea (MOTIE/KIAT)

Jan 2021

- Forecasting oil and coolant temperature and pressure changes [\[award talk\]](#)

Gold Prize | KIIE Fall Conference 2013

Nov 2013

- Optimizing routing and wavelength assignment in next-generation ROADMs [\[paper\]](#)

Talks & Teaching**Talks****NAVER CLOVA AI Tech Talk** | K-Wav2vec 2.0: Korean ASR based on joint decoding of graphemes and syllables [\[certificate\]](#)

Nov 2021

KIIE Spring Joint Conference 2021 | Korean speech recognition with Wav2vec 2.0 [\[paper\]](#)

Jun 2021

Teaching**Hyundai Mobis**

Sep 2021

Project Assistant · Mentored corporate team projects on explainable AI for a plating process

LG Innotek | Instructor · Python for machine learning and deep learning

Jul 2021

LG Chem | Instructor · Python for machine learning

Aug 2020