

# Jeonghoon Shim

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## Area of Interests

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I am interested in defining and solving problems in the training and evaluation of AI Agents toward real-world deployment. Previously, I've conducted research on dialogue interaction between AI Agents and human users, and I still have great enthusiasm for it. Beyond this, I am interested in RL training of AI Agents and visually-grounded Agents (e.g., GUI, Mobile agents).

## Education

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**Seoul National University** 03/2025 – Present  
Ph.D. in Graduate School of Data Science  
Advisor: Yohan Jo

**Seoul National University** 03/2023 – 02/2025  
Master in Graduate School of Data Science  
Advisor: Yohan Jo

**Hanyang University** 03/2017 – 02/2023  
B.S. in Urban Planning and Engineering (2-year absence due to Korean military service)  
Advisor: Junho Ko

## Publications

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[1] Non-Collaborative User Simulators for Tool Agents

**Jeonghoon Shim**, Woojung Song, Cheyon Jin, Seungwon KooK, and Yohan Jo  
*ICLR 2026*

- Identification of non-collaborative user behaviors observed in real-world customer service
- Proposal of simulation methods that replicate non-collaborative users
- Experimental results demonstrate that state-of-the-art and fine-tuned agents can be impaired when faced with non-collaborative users

[2] ToolDial: Multi-turn Dialogue Generation Method for Tool-Augmented Language Models

**Jeonghoon Shim**, Gyuhyeon Seo, Cheongsu Lim, and Yohan Jo  
*ICLR 2025*

- Proposal of a syntactic dialogue data generation method for tool agents utilizing an API graph and agenda-based approach
- Automatic generation of multi-turn dialogues covering diverse scenarios with in terms of quality and quantity
- Experimental results reveal that state-of-the-art tool agents struggle in perceiving exact input parameter states and optimal action selection throughout multi-turn dialogue

[3] Analysis of Seoul Public Bike Demand during Night Times by Applying Heckman Selection Models

**Jeonghoon Shim** and Junho Ko  
*KST 2022*

- Analysis of shared bicycle usage pattern differences between late-night and daytime hours in Seoul
- Application of Heckman Selection models on public bike usage data with geospatial features
- Discovery that the current placement of shared bicycle stations may be misaligned with the needs of late-night users

### **Industry Collaboration**

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Yield Analysis LLM Agents for Semiconductor Manufacturing 12/2025 – Present  
*Samsung Electronics, AI Center*

- Development of a diagnostic framework for yield analysis LLM agents deployed in semiconductor manufacturing service
- Automatic extraction of non-collaborative behavior categories from natural language queries collected from internal engineers
- Simulation of extracted behaviors and diagnosis of agent weaknesses under such conditions

### **Teaching Assistant**

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Graduate teaching assistant, Large Language Models and Conversational AI, SNU Spring 2025

Graduate teaching assistant, Computing for Data Science 1, SNU Spring 2024