

# DONGSU LEE

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## EDUCATION & AFFILIATION

### University of Texas at Austin

Ph.D. student in Department of Electrical and Computer Engineering  
Adviser: Prof. Amy Zhang

Austin, TX  
Aug. 2025 - Present

### Carnegie Mellon University

Collaborative Researcher in Safe AI Lab  
Adviser: Prof. Ding Zhao

Pittsburgh, PA  
(Remote) Mar. 2025 - Jun. 2025

### Carnegie Mellon University

Visiting student in School of Computer Science  
Adviser: Prof. Ding Zhao

Pittsburgh, PA  
Aug. 2024 - Feb. 2025

### Soongsil University

M.S. (coursework completed; degree not awarded) in Department of Intelligent Semi-conductor  
Adviser: Prof. Minhae Kwon

Seoul, Korea  
Mar. 2022 - Feb. 2025

### Soongsil University

B.S., Bio-medical System; Big-data Computing  
GPA: 4.22 (Major: 4.22) /4.5 (**summa cum laude**)  
Leave of absence for military service: Aug 2017 - May 2019 (2 years)

Seoul, Korea  
Mar. 2016 - Feb. 2022





## PUBLICATIONS & PREPRINTS (GOOGLE SCHOLAR)

### Conferences

1. **Dongsu Lee**, Daehee Lee, Amy Zhang  
*Multi-agent Coordination via Flow Matching*  
Preprint
2. **Dongsu Lee**, Daehee Lee, Yaru Niu, Honguk Woo, Amy Zhang, Ding Zhao  
*Learning to Interact in World Latent for Team Coordination*  
Preprint  
NeurIPS ARLET Workshop, 2025 (**Oral**)
3. Daehee Lee, **Dongsu Lee**, TaeYoon Kwack, Wonje Choi, Honguk Woo  
*Policy Compatible Skill Incremental Learning via Lazy Learning Interface*  
Neural Information Processing System (**NeurIPS**), **2025** (**Spotlight**)
4. **Dongsu Lee**, Minhae Kwon  
*Temporal Distance-aware Transition Augmentation for Offline Model-based Reinforcement Learning*  
International Conference on Machine Learning (**ICML**), **2025**
5. **Dongsu Lee**, Minhae Kwon  
*Episodic Future Thinking Mechanism for Multi-agent Reinforcement Learning*  
Neural Information Processing System (**NeurIPS**), **2024**
6. **Dongsu Lee**, Chanin Eom, Minhae Kwon  
*AD4RL: Autonomous Driving Benchmarks for Offline Reinforcement Learning with Value-based Dataset*  
IEEE International Conference on Robotics and Automation (**ICRA**), **2024**

### Journals

1. **Dongsu Lee**, Minhae Kwon  
*Scenario-free Autonomous Driving with Multi-task Offline-to-online Reinforcement Learning*  
IEEE Transactions on Intelligent Transportation Systems, 2025.
2. **Dongsu Lee**, Minhae Kwon  
*Offline Reinforcement Learning on Foresighted Decision-making for Autonomous Driving System*  
IEEE Internet of Things Journal, vol.12, no.19, 2025.
3. **Dongsu Lee**, Minhae Kwon  
*Instant Inverse Modeling of Stochastic Driving Behavior with Deep Reinforcement Learning*  
IEEE Transaction on Consumer Electronics, September 2024

4. Chanin Eom, **Dongsu Lee**, Minhae Kwon  
*Selective Imitation for Efficient Online Reinforcement Learning with Pre-collected Data*  
ICT Express, vol. 11, no. 2, 2025 
5. Jeyeon Eo, **Dongsu Lee**, Minhae Kwon  
*The Impact of Dataset on Offline Reinforcement Learning Performance in UAV-based Emergency Network Recovery Tasks*  
IEEE Communication Letters, vol. 28, no. 5, May 2024 
6. **Dongsu Lee**, Minhae Kwon  
*Stability Analysis in Mixed-Autonomous Traffic with Deep Reinforcement Learning*  
IEEE Transactions on Vehicular Technology, vol 72, no. 3, March 2023   
NeurIPS 2021 Deep Reinforcement Learning Workshop
7. **Dongsu Lee**, Minhae Kwon  
*ADAS-RL: Safety Learning Approach for Stable Autonomous Driving*  
ICT Express, vol.8, no.3, September 2022 

## Under Review

1. **Dongsu Lee**, Yaru Niu, Yongkang Liu, Ding Zhao  
*Multi-agent Reinforcement Learning*  
ICRA 2026

## PATENTS

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### Issued US Patents

1. **Dongsu Lee**, Minhae Kwon, "Method and Apparatus for Inferring Stochastic Driving Characteristic of a Vehicle," US Patent, April 26, 2023. (Application no. US 18/139602), issued on December XX, 2025. (Patent no. US XX)
2. **Dongsu Lee**, Minhae Kwon, "Apparatus and Method for Inferring Driving Characteristics of Vehicle," US Patent, Oct 4, 2022. (Application no. US 17/959515), issued on Aug 19, 2025. (Patent no. US 12,391,261)
3. **Dongsu Lee**, Minhae Kwon, "Method for Combating Stop-and-Go Wave Problem Using Deep Reinforcement Learning based Autonomous Vehicles, Recording medium and device for performing this the method," US Patent, Nov 27, 2021. (Application no. US 17/535567), issued on September 17, 2024. (Patent no. US 12,091,025)

## HONORS AND AWARDS

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### Scholarships

- **Hyundai Overseas Scholarship (USD 7,000 / year)** Aug 2025 - Present  
Hyundai Motor Chung Mong-Koo Foundation
- **UT Austin Engineering Fellowship (USD 6,000 / year)** Aug 2025 - Present  
Cockrell School of Engineering and The University of Texas at Austin Graduate School
- **Hyundai Future Industrial Talent Scholarship (Tuition + KRW 3,600K/year)** Aug 2023 - Feb 2025  
Hyundai Motor Chung Mong-Koo Foundation  
Full tuition, insurance, and living expenses support for graduate studies
- **Soongsil Graduate Admission Excellence Scholarship (Tuition)** 2022
- **Yesan Fellowship Local Talent Scholarship (KRW 2,000K)** 2021
- **Soongsil Academic Excellence Scholarship (Tuition)** 2016, 2019, 2020

### Awards

- **Global Excellence Scholarship (Prize: KRW 3,000K; three times)** 2024  
Hyundai Motor Chung Mong-Koo Foundation
- **Best Journal Paper Award** 2023, 2024  
Korean Institute of Communications and Information Science

- **ICT Challenge IITP President's Award (Prize: KRW 5,000K)** 2023  
Ministry of Science and ICT and Institute for Information & communication Technology Planning & evaluation
- **Haedong Best Paper Award** 2023, 2024  
Korean Institute of Communications and Information Science
- **Best Paper Award** 2022, 2024  
Korean Institute of Communications and Information Science
- **ICT Idea Competition Award** 2021  
Korean Institute of Communications and Information Science

## Grants

- **NeurIPS Travel Grants, Vancouver, Canada** 2024  
Neural Information Processing Foundation  
Full conference registration and accommodation support
- **AI Intensive Program at Carnegie Mellon University, Pittsburgh, PA (USD 41,000)** 2024 - 2025  
IITP & Sogang University
- **ICRA Travel Grants, Yokohama, Japan (USD 2,500)** 2024  
IEEE Robotics and Automation Society
- **18th Qualcomm IT Tour, San Diego, CA** 2022  
Qualcomm Incorporation  
Full support including flight, accommodation, and living expenses
- **Upper Bound: AI Conference, Edmonton, Canada (USD 2,200)** 2022, 2024  
Alberta Machine Intelligence Institution (AMII)
- **Conference Financial Assistance, Virtual** 2021  
Neural Information Processing Systems (NeurIPS)

## EXPERIENCES

### Professional Experiences

- **ICML Theory of Mind Workshop** (Program Committee) Jul 2023
- **EIRIC Rising Researcher Seminar** (Presenter) Electronic & Information Research Information Center Jun 2023
- **R&D Promising Technology Showcase** (Presenter) Korea evaluation institute of industrial technology May 2023

### Teaching Assistance

- **Multi-media Converging Technology**, Soongsil University 2023 Spring
- **Programming and Practice**, Soongsil University 2021 Autumn

### Reviews

- **Journal:** Nature Communication, IEEE TCYB, IEEE TITS, IEEE TCE, IEEE IoTJ, IEEE TVT
- **Conference:** ICLR (2026), NeurIPS (2025), ICML (2022), CoRL (2025), ICRA (2026, 2025), IROS (2025), IEEE IV (2025)
- **Workshop:** NeurIPS ARLET (2025), ICML ToM (2023), NeurIPS ML4AD (2022)

## RESEARCH MENTORSHIP

<b>Rohit Chawla</b>	Ongoing (UT Austin, BS)	2025
<b>Cole Harrison</b>	Ongoing (Amazon)	2025
<b>Chanin Eom</b>	Co-authored 2 papers (Soongsil Univ., MS → Soongsil Univ. Ph.D)	2023–2024