

Seokbin Yoon

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EDUCATION	M.S. Smart Air Mobility & Air Transportation , Korea Aerospace University • Grade: 4.0/4.5 (3.79/4.0) • Thesis: Trajectory Reconstruction and Prediction for Vectored Area Navigation Arrivals, Supervised by Dr. Keumjin Lee	Feb 2024
	B.S. Air Transportation , Korea Aerospace University • Grade: 3.94/4.5 (3.71/4.0)	Feb 2022
RESEARCH INTERESTS	<ul style="list-style-type: none">• Air Traffic Control & Advanced Air Mobility• Deep Learning & Generative Models• Autonomous & Safety-Critical Systems	
PROFESSIONAL EXPERIENCE	Researcher , Aviation Industry Policy Research Institute, South Korea • Developing human-interpretable multi-agent flight trajectory model • Developing automatic air traffic control speech recognition model with synthetic speech data • Working on air traffic complexity inference with computer vision method	Feb 2024–Present
PUBLICATIONS & PROCEEDINGS	[1] Seokbin Yoon , K. Lee, “Generative Multi-Agent Flight Trajectory Prediction via Conditional Flow Matching,” In preparation. [2] K. Kim, Seokbin Yoon , K. Lee, “Probabilistic Multi-Agent Aircraft Landing Time Prediction,” AIAA SciTech, Accepted, 2026. [3] Seokbin Yoon , K. Lee, “Multi-Agent Inverted Transformer for Flight Trajectory Prediction,” IEEE Transactions on Intelligent Transportation Systems, Under First Revision, available at [link] . [4] Seokbin Yoon , K. Lee, “Aircraft Trajectory Dataset Augmentation in Latent Space,” International Journal of Aeronautical & Space Sciences, available at [link] . [5] Seokbin Yoon , K. Lee, “Aircraft Trajectory Prediction with Inverted Transformer,” IEEE Access, available at [link] . [6] H. Chai, Seokbin Yoon , K. Lee, “Learning to Explain Air Traffic Situation,” US-Europe Air Transportation Research & Development Symposium (ATM Seminar & ICRAT), 2025, available at [link] . [7] J. Kang, Seokbin Yoon , K. Lee, SH. Kim, “Urban Air Mobility Fleet Rebalancing with Real-Time Updates on Estimated Time of Arrival,” AIAA/IEEE Digital Avionics System Conference (DASC), 2024, available at [link] (Best Paper of the Session). [8] Seokbin Yoon , K. Lee, “Improving Aircraft Trajectory Prediction Accuracy with Over-sampling Technique,” AIAA/IEEE Digital Avionics System Conference (DASC), 2023, available at [link] . [9] NH. Gray, S. Shin, Seokbin Yoon , Y. Park, H. Chai, K. Lee, H. Kim, S. Jung, “Safety and Capacity Analysis Framework for Integrated UAM Operation in Airports,” AIAA/IEEE Digital Avionics System Conference (DASC), 2023, available at [link] (Best Paper of the Session).	
HONORS AND AWARDS	Best Paper of the Session at AIAA/IEEE Digital Avionics System Conference 2024 President's Award at Korea Aerospace University Best Paper of the Session at AIAA/IEEE Digital Avionics System Conference 2023 Brain Korea 21 Plus (BK21+) Research Scholarship at Korean Government	Dec 2024 Sep 2023 Oct 2023 Jun 2022–Jun 2023
CERTIFICATIONS AND LICENSES	Air Traffic Controller License , Ministry Land, Infrastructure and Transport, South Korea	Oct 2023

ACTIVITIES	Student Air Traffic Controller , Korea Aerospace University <ul style="list-style-type: none">Learned the air traffic control process of terminal and sector airspace (1 year)Field ATC training at Jungseok Airfield (Korean Air), South Korea (1 month)	Feb 2021–Feb 2022
	Academic Club President , Korea Aerospace University <ul style="list-style-type: none">Led the academic club about Urban Air Mobility (UAM)Participated undergraduate research competition	Jun 2021–Dec 2021
COMPETENCES	Programming Languages: Python, MATLAB, L ^A T _E X Software Libraries: PyTorch	
REFERENCES	Keumjin Lee , Professor Department of Air Transport, Transportation, and Logistics, Korea Aerospace University keumjin.lee@kau.ac.kr	
	Sang Hyun Kim , Associate Professor Department of Air Transport, Transportation, and Logistics, Korea Aerospace University sanghyun@kau.ac.kr	
	Hojong Baik , Professor Department of Air Transport, Transportation, and Logistics, Korea Aerospace University hbaik@kau.ac.kr	
	Jay Hoon Jung , Assistant Professor Department of Artificial Intelligence, Korea Aerospace University jhjung@kau.ac.kr	