

## Education

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- **Seoul National University** Seoul, Korea  
*B.S., Mechanical and Aerospace Engineering* *Mar. 2015 - Feb. 2021*
- **Seoul National University** Seoul, Korea  
*M.S., Aerospace Engineering* *Mar. 2021 - Present*  
Advisor: Prof. H. Jim Kim (Lab for Autonomous Robotics Research)

## Publications (\* Equal Contribution)

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- CQM: Curriculum Reinforcement Learning with a Quantized World Model  
*Seungjae Lee, Daesol Cho, Jonghae Park, H Jin Kim*  
*Thirty-seventh Conference on Neural Information Processing Systems, 2023, [Project Link]* **NeurIPS'23**
- Diversify Conquer: Outcome-directed Curriculum RL via Out-of-Distribution Disagreement  
*Daesol Cho, Seungjae Lee, H Jin Kim*  
*Thirty-seventh Conference on Neural Information Processing Systems, 2023, [Paper Link]* **NeurIPS'23**
- SNeRL: Semantic-aware Neural Radiance Fields for Reinforcement Learning  
*Dongseok Shim\*, Seungjae Lee\*, H Jin Kim Kim*  
*Fortieth International Conference on Machine Learning, 2023, [Project Link]* **ICML'23**
- Outcome-directed Reinforcement Learning by Uncertainty & Temporal Distance-Aware Curriculum Goal Generation  
*Daesol Cho\*, Seungjae Lee\*, H Jin Kim*  
*Eleventh International Conference on Learning Representations, 2023, [Project Link]* **Spotlight ICLR'23**
- Deep End-to-End Imitation Learning for Missile Guidance with Infrared Images  
*Seungjae Lee, Jongho Shin, Hyeong-Geun Kim, Daesol Cho, H. Jin Kim*  
*International Journal of Control, Automation and Systems (IJCAS), 2023, [Paper Link]* **IJCAS'23**
- DHRL: A Graph-Based Approach for Long-Horizon and Sparse Hierarchical Reinforcement Learning  
*Seungjae Lee, Jigang Kim, Inkyu Jang, H Jin Kim*  
*Thirty-sixth Conference on Neural Information Processing Systems, 2022, [Project Link]* **Oral NeurIPS'22**
- Robust and Recursively Feasible Real-Time Trajectory Planning in Unknown Environments  
*Inkyu Jang, Dongjae Lee, Seungjae Lee, H Jin Kim*  
*2021 IEEE/RSJ International Conference on Intelligent Robots and Systems, 2021, [Paper Link]* **IROS'21**

## Teaching / Work Experience

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- **Teaching Assistant, Principles of Flight Vehicle Control**  
Department of Aerospace Engineering, Seoul National University *Mar. 2021 - Jun. 2021*
- **Internship, Samsung Electronics (Neural Network Quantization)**  
Deep Learning Algorithm Team / Device Solutions (DS) *Jul. 2020 - Sep. 2020*

## Projects

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- **Vector-Quantized Behavior Transformer for Multi-Modal Demonstrations**  
Co-work with Generalizable Robotics and AI Lab (Prof. Lerrel Pinto) at New York University *Jul. 2023 - Present*
- **Training Excavator Virtual Driver based on Inverse RL**  
Co-work with HD Hyundai Heavy Industries Co., Ltd. *Apr. 2023 - Present*
- **End-to-End Machine Learning Based Guidance Research**  
Co-work with a Korean national research institute *May. 2021 - Apr. 2023*

# Awards and Achievements

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- (Awards) Graduated Summa Cum Laude, Seoul National University *Feb. 2021*
- (Scholarship) Hyundai Motor Chung Mong-Koo Foundation *Sep. 2021 - Present*
- (Awards) NeurIPS Scholar Award *Dec. 2022*
- (Awards) Global Excellence Scholarship 2022, Hyundai Motor Chung Mong-Koo Foundation *Dec. 2022*
- (Awards) Best poster competition, SNU Artificial Intelligence Institute Spring Retreat *May. 2023*
- (Awards) Global Excellence Scholarship 2023, Hyundai Motor Chung Mong-Koo Foundation *Jun. 2023*