

Minjune Hwang

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Education

Sep '21 – Dec '23	Stanford University <i>M.S. in Computer Science</i>	GPA: 4.0 / 4.3
Aug '17 – May '21	University of California, Berkeley <i>B.A. in Computer Science, B.A. in Statistics</i>	GPA: 3.90 / 4.0 (CS GPA: 3.98)

Work Experience

Mar '22 - Present	Stanford Vision Lab - Research Assistant <ul style="list-style-type: none">Researching robot learning algorithms for efficient manipulation, from various source of data including human demonstrations, feedback, and environmental interactions, under Prof Fei-Fei Li.Developed robot manipulation (kinematics & control) tools in large-scale embodied-AI simulation.
Sep '22 - Dec '22	Amazon Robotics - Applied Scientist Intern <ul style="list-style-type: none">Developed a novel task-specific object & motion detection algorithm and ML training pipelines.
June '22 - Sep '22	Microsoft - Research Intern <ul style="list-style-type: none">Designed an RL algorithm for offline domain transfer via reward augmentation & residual learning.
May '21 - Aug '21	Apple, SPG - Software Engineering Intern, Motion & Trajectory Planning <ul style="list-style-type: none">Developed motion sampling / planning algorithms for generating kinematically feasible trajectories.Implemented data serialization and abstraction layers for trajectory optimization.
Feb '19 - May '21	Berkeley AI Research - Research Assistant <ul style="list-style-type: none">Created a large-scale trajectory dataset for vehicle behavior learning with Prof. Alexandre Bayen.Researched extractive text summarization with topic-models & RNNs with Prof. Laurent El Ghaoui.Developed a sparsity-invariant CNNs for adversarial attack detection via occlusion.

Honors

2021	High Distinction (Magna Cum Laude) in General Scholarship, UC Berkeley
2020	Best Workshop Paper Award @ Conference of Applied Cryptography and Network Security 2020
2020	Berkeley Summer Undergraduate Research Fellowships

Selected Publications

2023	1. Hwang, M. , Hiranaka, A., Lee, S., Wang, C., Fei-Fei, L., Wu, J. & Zhang, R. Primitive Skill-Based Robot Learning from Human Evaluative Feedback. <i>IROS</i> , 2023.
	2. Lingelbach, M., Li, C., Hwang, M. , Kurenkov, A., Lou, A., Martín-Martín, R., Zhang, R., Fei-Fei, L. & Wu, J. Task-Driven Graph Attention for Hierarchical Relational Object Navigation. <i>ICRA</i> , 2023.
2022	3. Li, C. <i>et al.</i> BEHAVIOR-1K: A Benchmark for Embodied AI with 1,000 Everyday Activities and Realistic Simulation. <i>CoRL</i> , 2022. (Nominated for Best Paper Award) .
2020	4. McCoyd, M., Park, W., Chen, S., Shah, N., Roggenkemper, R., Hwang, M. , Liu, J. X. & Wagner, D. Minority Reports Defense: Defending Against Adversarial Patches. <i>Security in Machine Learning and its Applications (SiMLA)</i> , 2020. (Best Paper Award) .
	5. Wu, F., Wang, D., Hwang, M. , Hao, C., Lu, J., Darrell, T. & Bayen, A. Motion Planning in Under-structured Road Environments with Stacked Reservation Grids. <i>Perception, Action, Learning (PAL) @ ICRA</i> , 2020.

Skills

- Programming Languages:** Python, SQL, C++, Java, Javascript, HTML/CSS, R, C
- ML:** Vision (segmentation, tracking, diffusion, etc), NLP (RNNs, Transformers), Multitask & Meta Learning
- Robotics:** ROS, RL (DDPG, SAC, CQL, etc), Optimal Control (LQR/LQG, MPC), Inverse RL, Planning (A*, RRT*, etc)
 - Libraries: PyTorch, Tensorflow, OpenCV, ROS, Ray, RLib, OMPL, cvxopt, SageMaker, Detectron2, NetworkX