Kyle Hatch

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EDUCATION

University of Southern California — **Los Angeles, CA**
PhD in Computer Science — *Expected graduation: May 2030*

Stanford University — **Stanford, CA**
M.S. in Computer Science — *Graduated: June 2023*

Stanford University — **Stanford, CA**
B.S. with honors in Computer Science — *Graduated: June 2022*

RESEARCH EXPERIENCE

Research Focuses: Robot Learning, Reinforcement Learning, Generative Models

University of Southern California (USC)
PhD student (co-advised by Yue Wang and Daniel Seita) — *August 2025 – Present*
Current research focuses on using human video data and generative models to increase the generalization capacity of robot agents.

Toyota Research Institute (TRI)
AI Resident in the Large Behavior Models (LBM) Division — *July 2023 – August 2025*
Developed a method to use image and video generative models to guide robotic manipulation policies, leading to a first-author publication in ICRA 2025.

Stanford IRIS Lab – Prof. Chelsea Finn
Undergraduate/Master's student — *October 2020 — June 2023*
Led/co-led three projects on robotics-oriented offline reinforcement learning. First-author/co-first author publications in CoRL 2023, L4DC 2023, and RLC 2024.

Stanford Intelligent Systems Laboratory (SISL) – Prof. Mykel Kochenderfer
Undergraduate student — *June 2019 — March 2021*
Led/co-led two projects on using machine learning and reinforcement learning for collision avoidance in unmanned aerial vehicles (UAVs). First-author/co-first-author publications in IROS 2021 and AIAA SciTech Forum 2021.

SELECTED PUBLICATIONS

Please see my Google Scholar profile for a complete list of publications.

Hatch, K., Balakrishna, A., Mees, O., Nair, S., Wulfe, B., Itkina, M., Eysenbach, B., Levine, S., Kollar, T., and Burchfiel, B., "GHIL-Glue: Hierarchical Control with Filtered Subgoal Images," *IEEE International Conference on Robotics and Automation (ICRA)*, 2025. PDF Website

Kolev, V.*, Rafailov, R.*, **Hatch, K. B.,** Wu, J., and Finn, C., "Efficient Imitation Learning with Conser-

vative World Models," *Learning for Dynamics & Control Conference* (*L4DC*), 2024. PDF

Rafailov, R.*, **Hatch, K. B.*,** Singh, A., Smith, L., Kumar, A., Kostrikov, I., Hansen-Estruch, P., Kolev, V., Ball, P., Wu, J., Finn, C., and Levine, S., "D5RL: Diverse Datasets for Data-Driven Deep Reinforcement Learning," *Reinforcement Learning Conference* (*RLC*), 2024. PDF

Rafailov, R.*, **Hatch, K. B.*,** Kolev, V., Martin, J., Phielipp, M., and Finn, C., "MOTO: Offline to Online Fine-tuning for Model-Based Reinforcement Learning," *Conference on Robot Learning* (*CoRL*), 2023. PDF Website

Hatch, K. B., Eysenbach, B., Yu, T., Rafailov, R., Salakhutdinov, R., Levine, S., and Finn, C., "Contrastive Example-Based Control," *Learning for Dynamics & Control Conference* (*L4DC*), 2023. PDF Website

Senanayake, R.*, **Hatch, K.*,** Zheng, J., and Kochenderfer, M. J., "3D Radar Velocity Maps for Uncertain Dynamic Environments," *IEEE International Conference on Intelligent Robots and Systems* (*IROS*), 2021. PDF Presentation

Hatch, K., Mern, J., and Kochenderfer, M. J., "Obstacle Avoidance Using a Monocular Camera," *American Institute of Aeronautics and Astronautics* (*AIAA*) *SciTech Forum*, 2021. PDF Presentation

***denotes equal contribution**

SKILLS

Machine Learning Frameworks	PyTorch, JAX, Tensorflow 2.0
Programming Languages	Python, C++
Cloud Computing	Amazon SageMaker
Reinforcement Learning Tools	deepmind-acme, TF-Agents, RLkit, JAXRL

OUTREACH

Breakthrough Silicon Valley (**BTSV**) **San Jose, CA**
Volunteer tutor *November 2023 – April 2024*

Provided homework support to high school students who are on track to becoming first-generation college students. Primarily assisted with mathematics.

East Palo Alto Stanford Academy (**EPASA**) **Stanford, CA**
Volunteer tutor *October 2018 – March 2020*

Provided homework support to seventh and eighth grade students from low-income backgrounds in mathematics and English, and helped students to develop effective study skills.

Stanford 1st Ward Volunteer Tutoring Program **Stanford, CA**
Volunteer tutor *September 2017 – June 2019*

Provided homework support to K-12 students in mathematics, reading, and English.