KARA LIU

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EDUCATION

University of California, Berkeley — 2016 - Present
B.S. in Computer Science and Cognitive Science — GPA: 3.97

Honors: UC Berkeley EECS Honors Degree Program (2018), UC Berkeley Leadership Award (2016, 2018)

TECHNICAL SKILLS

Computer Languages: Python, C++, Java, SQL, HTML
Software & Tools: PyTorch, TensorFlow, Git, LaTeX, Vim

EXPERIENCE

Berkeley Artificial Intelligence Research (BAIR) Lab — 2018 – Present
Undergraduate Researcher
· Focused on integrating machine learning methods with robotics, specifically on long-horizon visual planning and representation learning, under the advising of Pieter Abbeel.

Hong Kong Advanced Science Technology and Research Institute — 2018
Research Intern
· Worked on the Security and Data Sciences team in investigating generative models and their potential impact in the security sector.

PUBLICATIONS

Learning Robotic Manipulation through Visual Planning and Acting — RSS 2019
*A. Wang, T. Kurutach, **K. Liu**, A. Tamar, P. Abbeel*
· Proposed a self-supervised, data-driven approach to planning robotic manipulation on deformable objects.
· Used Causal InfoGAN to generate visual plan, and use learned inverse control model to execute actions on PR2.

Hallucinative Topological Memory for Zero-Shot Visual Planning
***K. Liu**, T. Kurutach, A. Tamar, P. Abbeel* — NeurIPs Deep RL Workshop 2019
· Presented a model-based algorithm for long-horizon visual planning.
· Employed a conditional VAE to visualize potential states, a classifier based on contrastive loss to search for feasibly trajectories, and a low-level controller to execute the plan.

TEACHING & LEADERSHIP

University of California, Berkeley — 2019 - Present
Undergraduate Student Instructor, CS 189 - Machine Learning

Medical Technologies at Berkeley — 2019 - Present
Machine Learning Co-Instructor

Girl Up — 2016 - 2018
Vice President

Alpha Chi Omega — 2018 - 2019
Vice President of Facility Operations