Kaylee Burns

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Interests   My goal is to develop scalable machine learning algorithms for robotics.

Education   **Ph.D. Computer Science, Stanford University**
2019 - Present
GPA 4.0. Jointly advised by Professors Karol Hausman and Chelsea Finn.
Coursework on non-euclidean ML, generative models, convex optimization.

M.S. Electrical Engineering and Computer Science,
University of California, Berkeley
2018 - 2019
GPA 4.0. Advised by Professor Trevor Darrell.

B.A. Computer Science & Cognitive Science,
University of California, Berkeley
2014 - 2018
GPA 3.93. Advised by Professors Tom Griffiths and Trevor Darrell.
Coursework on neuroscience, operating systems, optimization, probability, random processes, machine learning, linear algebra, etc.

Experience   **Research Scientist Intern, Google**
Summer 2021
Robotics research at Google Brain NYC.

Software Engineering Intern, IBM
Summer 2017
Developed API forecasting software using autoregressive models. Pitched project to a panel of executives each week and presented final project at a company-wide expo at headquarters.

Skills   **Pytorch, JAX**
Daily Use
Tensorflow, CVX, ROS, Java, C
Familiarity in Decreasing Order

Teaching   **Teaching Assistant, University of California, Berkeley**
EE 126, Probability and Random Processes. 2018

CS 70, Discrete Math and Probability Theory. 2017
CS 61B, Data Structures and Algorithms. 2017, 2016

Professional	**Organizer**

Bridging AI and Cognitive Science (BAICS) Workshop at ICML. 2020

Reviewer

Conference on Empirical Methods in Natural Language Processing (EMNLP). 2020, 2021
European Conference on Computer Vision (ECCV). 2020
International Conference on Computer Vision (ICCV). 2021
International Conference on Learning Representations (ICLR). 2020, 2021, 2022, 2023
International Conference on Machine Learning (ICML). 2022
Neural Information Processing Systems (NeurIPS). 2021, 2022
North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT). 2019, 2021

Awards

NSF GRFP. 2020-2023
Jim and Donna Gray Award. 2017
Helen Tomasini Scholarship. 2017
Guerra Kung Scholarship. 2017

Publications

Kaylee Burns, Tianhe Yu, Chelsea Finn, Karol Hausman. "Robust Manipulation with Spatial Features." At *Pretraining Robot Learning Workshop at CoRL 2022*.

Kaylee Burns, Tianhe Yu, Chelsea Finn, Karol Hausman. "Offline Reinforcement Learning at Multiple Frequencies." At *CoRL 2022*.

Aditya Ganapathi, Pete Florence, Jake Varley, **Kaylee Burns**, Ken Goldberg, Andy Zeng. "Implicit Kinematic Policies: Unifying Joint and Cartesian Action Spaces in End-to-End Robot Learning." At *ICRA 2022*.

Kaylee Burns, Christopher D. Manning, Li Fei-Fei. "Neural Abstractions: Abstractions that Support Construction for Grounded Language Learning." At *CtrlGen: Controllable Generative Modeling in Language and Vision at NeurIPS 2021*.

Kaylee Burns, Aida Nematzadeh, Erin Grant, Alison Gopnik, and Tom Griffiths. "Exploiting Attention to Reveal Shortcomings in Memory Models." At *EMNLP 2018*.

Anna Rohrbach*, Lisa Anne Hendricks*, **Kaylee Burns**, Trevor Darrell, and Kate Saenko. "Object Hallucination in Image Captioning." At *EMNLP 2018*.

Aida Nematzadeh, **Kaylee Burns**, Erin Grant, Alison Gopnik, & Tom Griffiths. (2018). "Evaluating theory of mind in question answering." Oral presentation at *EMNLP 2018*.

Lisa Anne Hendricks*, **Kaylee Burns***, Kate Saenko, Trevor Darrell, Anna Rohrbach. "Women also Snowboard: Overcoming Bias in Captioning Models." At *ECCV 2018*.