

Kaylee Burns

kayburns@stanford.edu

kayburns.github.io

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

Python, Pytorch, NumPy, Bash

Daily Use

JAX, Tensorflow, MTurk, 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

Neural Information Processing Systems (NeurIPS). 2021

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, 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*.