Bio

BIO

Chelsea Finn is an Assistant Professor in Computer Science and Electrical Engineering at Stanford University, and the William George and Ida Mary Hoover Faculty Fellow. Professor Finn's research interests lie in the ability to enable robots and other agents to develop broadly intelligent behavior through learning and interaction. Her work lies at the intersection of machine learning and robotic control, including topics such as end-to-end learning of visual perception and robotic manipulation skills, deep reinforcement learning of general skills from autonomously collected experience, and meta-learning algorithms that can enable fast learning of new concepts and behaviors. Professor Finn received her Bachelors degree in Electrical Engineering and Computer Science at MIT and her PhD in Computer Science at UC Berkeley. Her research has been recognized through the ACM doctoral dissertation award, an NSF graduate fellowship, a Facebook fellowship, the C.V. Ramamoorthy Distinguished Research Award, and the MIT Technology Review 35 under 35 Award, and her work has been covered by various media outlets, including the New York Times, Wired, and Bloomberg. Throughout her career, she has sought to increase the representation of underrepresented minorities within CS and AI by developing an AI outreach camp at Berkeley for underprivileged high school students, a mentoring program for underrepresented undergraduates across three universities, and leading efforts within the WiML and Berkeley WiCSE communities of women researchers.

Website: https://ai.stanford.edu/~cbfinn

ACADEMIC APPOINTMENTS

• Assistant Professor, Computer Science
• Assistant Professor, Electrical Engineering
• Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)

HONORS AND AWARDS

• ACM Doctoral Dissertation Award, ACM (2019)
• C.V. Ramamoorthy Distinguished Research Award, UC Berkeley (2017)

PROGRAM AFFILIATIONS

• Symbolic Systems Program

LINKS

• Academic website: http://ai.stanford.edu/~cbfinn/
• Google Scholar: https://scholar.google.com/citations?user=vfPE6hgAAAAJ
• CV: http://ai.stanford.edu/~cbfinn/_files/cv.pdf
Teaching

COURSES

2021-22
• Deep Multi-task and Meta Learning: CS 330 (Aut)

2020-21
• Artificial Intelligence: Principles and Techniques: CS 221 (Spr)
• Deep Multi-task and Meta Learning: CS 330 (Aut)

2019-20
• Artificial Intelligence: Principles and Techniques: CS 221 (Spr)
• Deep Multi-task and Meta Learning: CS 330 (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)
Erdem Biyik, Michael Lingelbach, Ajay Mandlekar, Andrew Nam, Apoorva Sharma, Eli Wang, Shengjia Zhao

Postdoctoral Faculty Sponsor
Ali Ghadirzadeh, Huaxiu Yao

Master's Program Advisor
Michal Adamkiewicz, Alaskar Alizada, Lilian Chan, Aditya Chandrasekar, Peng Chen, Ben Cheng, Siyun Li, Nikka Mofid, Alejo Navarro Goldaraz, Lucas Orts, Yanal Qushair, Collin Schlager, Xuan Su, Ruocheng Wang, Yian Zhang, suzy lou

Doctoral Dissertation Co-Advisor (AC)
Dilip Arumugam, Saurabh Kumar, Eric Mitchell

Doctoral (Program)
Kyle Hsu, Sasha Khazatsky, Evan Liu, Ariana Mann, Suraj Nair, Archit Sharma, Siyi Tang, Annie Xie, Tianhe Yu, Allan Zhou

Publications

PUBLICATIONS

• Batch Exploration With Examples for Scalable Robotic Reinforcement Learning IEEE ROBOTICS AND AUTOMATION LETTERS
  Chen, A. S., Nam, H., Nair, S., Finn, C.
  2021; 6 (3): 4401–8

• Recovery RL: Safe Reinforcement Learning With Learned Recovery Zones IEEE ROBOTICS AND AUTOMATION LETTERS
  Thananjeyan, B., Balakrishna, A., Nair, S., Luo, M., Srinivasan, K., Hwang, M., Gonzalez, J. E., Ibarz, J., Finn, C., Goldberg, K.
  2021; 6 (3): 4915-4922

• How to train your robot with deep reinforcement learning: lessons we have learned INTERNATIONAL JOURNAL OF ROBOTICS RESEARCH
  Ibarz, J., Tan, J., Finn, C., Kalakrishnan, M., Pastor, P., Levine, S.
  2021; 40 (4-5): 698-721

• WILDS: A Benchmark of in-the-Wild Distribution Shifts
  JMLR-JOURNAL MACHINE LEARNING RESEARCH.2021

• Learning Generalizable Robotic Reward Functions from "In-The-Wild" Human Videos
  Chen, A. S., Nair, S., Finn, C., Shell, D. A., Toussaint, M., Hsieh, M. A.
• Decoupling Exploration and Exploitation for Meta-Reinforcement Learning without Sacrifices
  Liu, E., Raghunathan, A., Liang, P., Finn, C., Meila, M., Zhang, T.
  JMLR-JOURNAL MACHINE LEARNING RESEARCH.2021

• Just Train Twice: Improving Group Robustness without Training Group Information
  JMLR-JOURNAL MACHINE LEARNING RESEARCH.2021

• Catformer: Designing Stable Transformers via Sensitivity Analysis
  Davis, J., Gu, A., Choromanski, K., Dao, T., Re, C., Finn, C., Liang, P., Meila, M., Zhang, T.
  JMLR-JOURNAL MACHINE LEARNING RESEARCH.2021

• Actionable Models: Unsupervised Offline Reinforcement Learning of Robotic Skills
  JMLR-JOURNAL MACHINE LEARNING RESEARCH.2021

• Meta-Inverse Reinforcement Learning with Probabilistic Context Variables
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2019

• Unsupervised Curricula for Visual Meta-Reinforcement Learning
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2019

• Unsupervised Visuomotor Control through Distributional Planning Networks
  Yu, T., Shevchuk, G., Sadigh, D., Finn, C., Bicchi, A., KressGazit, H., Hutchinson, S.
  MIT PRESS.2019

• One-Shot Composition of Vision-Based Skills from Demonstration
  Yu, T., Abbeel, P., Levine, S., Finn, C., IEEE
  IEEE.2019: 2643–50