Annie S. Chen

asc8@stanford.edu https://anniesch.github.io/

EDUCATION

Ph.D. in Computer Science, Stanford University

Sept. 2021 - Present

Advisor: Chelsea Finn

M.S. in Computer Science, Stanford University

Sept. 2020 - June 2021

Artificial Intelligence Specialization, GPA: 4.0

B.S. in Mathematics, Stanford University

Sept. 2017 - June 2021

With Distinction

FUNDING & AWARDS

NSF Graduate Research Fellowship (2021-2024)

Microsoft Accelerate Foundation Models Grant (Sept. 2023)

HAI Google Cloud Credit Grant (Nov. 2022)

Women in Machine Learning (WiML) Travel Funding Award (Nov. 2022)

Stanford Mathematics Distinguished Service Award (June 2021)

University Distinction, top 15% graduating class, Stanford University (June 2021) Honorable Mention, Computing Research Association (CRA) Undergraduate Researcher Award (Dec. 2020)

Outstanding Poster Presentation, Joint Mathematics Meetings (JMM) Undergraduate Poster Session (Jan. 2019)

J. Perry Bartlett STEM Scholarship (2017-2021), \$40k for undergraduate studies

PREPRINTS & PUBLICATIONS

- * denotes equal contribution
- [16] Moritz Stephan, Alexander Khazatsky, Eric Mitchell, **Annie S. Chen**, Sheryl Hsu, Archit Sharma, Chelsea Finn. RLVF: Learning from Verbal Feedback without Overgeneralization. *Preprint*, 2024.
- [15] Johnathan Xie*, **Annie S. Chen***, Yoonho Lee, Eric Mitchell, Chelsea Finn. Calibrating Fine-Tuned Language Models via Adaptive Temperature Scaling. *ICLR Workshop on Secure and Trustworthy LLMs*, 2024.
- [14] Caroline Choi*, Yoonho Lee*, **Annie S. Chen**, Allan Zhou, Aditi Raghunathan, Chelsea Finn. AutoFT: Robust Fine-Tuning by Optimizing Hyperparameters on OOD Data. *Preprint*, 2024.
- [13] Annie S. Chen*, Govind Chada*, Laura Smith, Archit Sharma, Zipeng Fu, Sergey Levine, Chelsea Finn. Adapt On-the-Go: Behavior Modulation for Single-Life Robot Deployment. *NeurIPS Robot Learning Workshop*, 2023.
- [12] **Annie S. Chen**, Yoonho Lee, Amrith Setlur, Sergey Levine, Chelsea Finn. Confidence-Based Model Selection: When to Take Shortcuts for Subpopulation Shifts. *NeurIPS DistShift Workshop*, 2023.
- [11] Johnathan Xie, Yoonho Lee, **Annie S. Chen**, Chelsea Finn. Self-Guided Masked Autoencoders for Domain-Agnostic Self-Supervised Learning. *International Conference on Learning Representations (ICLR)*, 2024.

- [10] Annie S. Chen*, Yoonho Lee*, Amrith Setlur, Sergey Levine, Chelsea Finn. Project and Probe: Sample-Efficient Domain Adaptation by Interpolating Orthogonal Features. *International Conference on Learning Representations (ICLR), Spotlight (top 5%)*, 2024.
- [9] Siddharth Karamcheti, Suraj Nair, **Annie S. Chen**, Thomas Kollar, Chelsea Finn, Dorsa Sadigh, Percy Liang. Language-Driven Representation Learning for Robotics. *Robotics: Science and Systems (RSS)*. *Best Paper Finalist*, 2023.
- [8] Yoonho Lee*, **Annie S. Chen***, Fahim Tajwar, Ananya Kumar, Huaxiu Yao, Percy Liang, Chelsea Finn. Surgical Fine-Tuning Improves Adaptation to Distribution Shifts. *International Conference on Learning Representations (ICLR)*, 2023.
- [7] Annie S. Chen, Archit Sharma, Sergey Levine, Chelsea Finn. You Only Live Once: Single-Life Reinforcement Learning. *Neural Information Processing Systems* (NeurIPS), 2022.
- [6] **Annie S. Chen**, Suraj Nair, Chelsea Finn. Learning Generalizable Robotic Reward Functions from "In-The-Wild" Human Videos. *Robotics: Science and Systems* (RSS), 2021.
- [5] Evan Z. Liu*, Behzad Haghgoo*, **Annie S. Chen***, Aditi Raghunathan, Pang Wei Koh, Shiori Sagawa, Percy Liang, Chelsea Finn. Just Train Twice: Improving Group Robustness without Training Group Information. *International Conference on Machine Learning (ICML)*, Long Oral (top 3%), 2021.
- [4] Annie S. Chen*, Hyunji Nam*, Suraj Nair*, Chelsea Finn. Batch Exploration with Examples for Scalable Robotic Reinforcement Learning. *International Conference on Robotics and Automation (ICRA)*, 2021.
- [3] Rishi Bommasani, ..., **Annie S. Chen**, ..., Percy Liang. On the Opportunities and Risks of Foundation Models. Report by the Center for Research on Foundation Models (CRFM), 2021.
- [2] Bryce Cai*, **Annie S. Chen***, Ben Heller*, Eyob Tsegaye*. Limit Theorems for Descents in Permutations and Arithmetic Progressions in Z/pZ. Outstanding Poster Presentation, Joint Mathematics Meetings Undergraduate Poster Session, 2019.
- [1] **Annie S. Chen**, T. Alden Gassert, Katherine E. Stange. Index Divisibility in Dynamical Sequences and Cyclic Orbits Modulo p. New York Journal of Mathematics 23, 1045-1063, 2017.

EXPERIENCE C

CS Researcher

Sept. 2019 - Present

Stanford Artificial Intelligence Laboratory (SAIL), Computer Science Dept.

- Advised by Chelsea Finn.
- Developing scalable methods that improve model adaptability and robustness to distribution shifts.

Research Intern, Student Researcher

June 2021 - Jan. 2022

Brain Robotics, Google, Inc.

- Mentored by Pete Florence and Andy Zeng
- Worked on improving action-conditioned visual dynamics models.

CS Research Assistant

Sept. 2018 - Apr. 2019

Stanford AI for Human Impact Lab, Computer Science Dept.

- Advised by Prof. Emma Brunskill
- Studied the impact of shared learning autonomy systems in practice.

Math Researcher

June 2018 - Aug. 2018

Stanford Undergraduate Research Institute in Math (SURIM)

- Mentored by Felipe Hernandez
- Improved bounds on the rate of convergence of various random variables locally to a Gaussian distribution.

INVITED TALKS

Stanford Robotics Seminar

January 2024

Single-Life Robot Deployment: Adapting On-the-Fly to Novel Scenarios

MosaicML August 2023

Surgical Fine-Tuning Improves Adaptation to Distribution Shifts

ICLR TrustML Unlimited Workshop

May 2023

Project and Probe: Sample-Efficient Domain Adaptation by Interpolating Orthogonal Features

ML Collective DLCT

March 2023

Project and Probe: Sample-Efficient Domain Adaptation by Interpolating Orthogonal Features

NeurIPS Women in Machine Learning (WiML) Workshop

Nov. 2022

You Only Live Once: Single-Life Reinforcement Learning

ICLR Self-Supervised Reinforcement Learning Workshop

May 2021

 $Learning\ Generalizable\ Robotic\ Reward\ Functions\ from\ "In-The-Wild"\ Human\ Videos.$

INVOLVEMENT Community Associate

Apr. 2023 - Present

Stanford Graduate Life Office

• Hold multiple events per quarter to foster community engagement and provide support to dorm residents

Mentoring Program Co-Organizer

Oct. 2021 - Present

Stanford CS Undergraduate Mentoring Program

• Match undergraduate students with graduate student mentors, aimed at increasing the participation of underrepresented minorities in CS

Peer Advisor

Sept. 2019 - June 2021

Stanford University Mathematics Department

• Held weekly office hours to advise math majors and organized quarterly events

Teaching Assistant

Sept. 2018 - Dec. 2019

Euler Math Circle

• Taught advanced proof techniques and topics, such as number theory, combinatorics, and analysis, to advanced middle and high school students

Board Member

Oct. 2017 - May 2020

Stanford Women in Computer Science (WiCS)

• Co-led outreach workshops introducing coding to middle school girls

MENTORING Undergraduate Students:

Andy Tang, Oct. 2023 - Present Alec Lessing, Oct. 2023 - Present Johnathan Xie, Jan. 2023 - Present Govind Chada, Sept. 2022 - Present

MISC. Reviewing:

IEEE Robotics and Automation Letters (RA-L): 2021 International Conference on Learning Representations (ICLR): 2022, 2023 International Conference on Machine Learning (ICML): 2024 Conference on Robot Learning (CoRL): 2022, 2023 Neural Information Processing Systems (NeurIPS): 2022, 2023