Annie S. Chen

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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

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. *In Submission*, 2024.

[15] Johnathan Xie*, **Annie S. Chen***, Yoonho Lee, Eric Mitchell, Chelsea Finn. Calibrating Fine-Tuned Language Models via Adaptive Temperature Scaling. *In Submission*, 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. *In Submission*, 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 Distribu-

tion 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.

FUNDING & AWARDS

NSF Graduate Research Fellowship (2021-2024)
Microsoft Accelerate Foundation Models Grant, $20k (Sept. 2023)
HAI Google Cloud Credit Grant, $15k (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

EXPERIENCE

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

Tutor, AI/ML *July 2022 - Present*
Self-Employed

- Tutor 1:1 on a broad range of machine learning topics, both theoretical concepts and practical applications

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: 2022, 2023
Conference on Robot Learning: 2022, 2023
Neural Information Processing Systems: 2022, 2023