

Kyle Hsu

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education

Stanford University PhD Candidate in Computer Science advised by Chelsea Finn and Jiajun Wu	Stanford, CA, USA 2020-09 – 2025-05 (exp.)
University of Toronto BASc in Engineering Science high honors, 3.98/4.00 CGPA	Toronto, ON, Canada 2015-09 – 2018-05, 2019-09 – 2020-05
Sir Winston Churchill Secondary School International Baccalaureate Diploma Program 43/45 points	Vancouver, BC, Canada 2013-09 – 2015-06

professional experience

Toyota Research Institute Research Intern w/ Blake Wulfe large behavior models	Los Altos, CA, USA 2024-06 – 2024-09
Google Brain (now Google DeepMind) Research Intern w/ Shane Gu data generation for generalizable robotic manipulation	Mountain View, CA, USA 2020-06 – 2020-09
Vector Institute Undergraduate Thesis Student w/ Roger Grosse differentiable annealed importance sampling Undergraduate Researcher w/ Dan Roy PAC-Bayes bound optimization	Toronto, ON, Canada 2019-09 – 2020-05 2019-12 – 2020-02
Berkeley Artificial Intelligence Research Visiting Student Researcher w/ Sergey Levine unsupervised meta-learning	Berkeley, CA, USA 2018-06 – 2019-05
Max Planck Institute for Software Systems Research Intern w/ Rupak Majumdar scalable abstraction-based controller synthesis	Kaiserslautern, RP, Germany 2017-06 – 2017-09
Micro/NanoPhotonics Lab Undergraduate Researcher w/ Joyce Poon waveguide-based external-cavity semiconductor lasers	Toronto, ON, Canada 2016-05 – 2016-11
Integrated Photonics Lab Research Volunteer with Ming C. Wu wrap-around silicon-germanium photodetectors	Berkeley, CA, USA 2014-06 – 2014-08

honors and awards

Postgraduate Scholarship – Doctoral (PGS D), NSERC to fund Canadian doctoral students for 3 years	2023
Canada Graduate Scholarship – Doctoral (CGS D), NSERC [declined] for a highly scored PGS D application	2023

Sequoia Capital Stanford Graduate Fellowship , Stanford University to fully fund doctoral students for 3 years	2020
Finalist, Outstanding Undergraduate Researcher Award , CRA for undergraduate computer science research in North America	2020
Engineering Science Award of Excellence , University of Toronto for academic achievement across all semesters	2020
Wallberg Undergraduate Scholarship , University of Toronto for academic standing	2016, 2017, 2019
Research in Science and Engineering Scholarship , DAAD to fund a summer research internship in Germany	2017
Undergraduate Student Research Award , NSERC [declined] to fund a summer research internship in Canada	2017
Engineering Science Research Opportunities Fellowship , University of Toronto to fund a summer research fellowship	2016
Walter Scott Guest Memorial Scholarship , University of Toronto for academic standing	2015

selected publications

for full list, please see [my Google Scholar profile](#)

*denotes equal contribution

robot learning

Evaluating real-world robot manipulation policies in simulation 2024

Xuanlin Li*, Kyle Hsu*, Jiayuan Gu*, Karl Pertsch, Oier Mees, Homer Rich Walke, Chuyuan Fu, Ishikaa Lunawat, Isabel Sieh, Sean Kirmani, Sergey Levine, Jiajun Wu, Chelsea Finn, Hao Su, Quan Vuong, Ted Xiao
arXiv preprint

Vision-based manipulators need to also see from their hands 2022

Kyle Hsu*, Moo Jin Kim*, Rafael Rafailov, Jiajun Wu, Chelsea Finn
International Conference on Learning Representations (ICLR) oral presentation

disentangled representation learning

Tripod: three complementary inductive biases for disentangled representation learning 2024

Kyle Hsu*, Jubayer Ibn Hamid*, Kaylee Burns, Chelsea Finn, Jiajun Wu
International Conference on Machine Learning (ICML)

Disentanglement via latent quantization 2023

Kyle Hsu, Will Dorrell, James CR Whittington, Jiajun Wu, Chelsea Finn
Neural Information Processing Systems (NeurIPS)

unsupervised meta-learning

Unsupervised curricula for visual meta-reinforcement learning 2019

Allan Jabri, Kyle Hsu, Ben Eysenbach, Abhishek Gupta, Sergey Levine, Chelsea Finn
Neural Information Processing Systems (NeurIPS) spotlight presentation

Unsupervised learning via meta-learning 2019

Kyle Hsu, Sergey Levine, Chelsea Finn
International Conference on Learning Representations (ICLR)

scalable abstraction-based controller synthesis

Lazy abstraction-based controller synthesis 2019

Kyle Hsu, Rupak Majumdar, Kaushik Mallik, Anne-Kathrin Schmuck

International Symposium on Automated Technology for Verification and Analysis (ATVA) invited paper

Multi-layered abstraction-based controller synthesis for continuous-time systems 2018

Kyle Hsu, Rupak Majumdar, Kaushik Mallik, Anne-Kathrin Schmuck

International Conference on Hybrid Systems: Computation and Control (HSCC)

misc. machine learning

Differentiable annealed importance sampling and the perils of gradient noise 2021

Guodong Zhang, Kyle Hsu, Jianing Li, Chelsea Finn, Roger Grosse

Neural Information Processing Systems (NeurIPS)

On the role of data in PAC-Bayes bounds 2021

Gintare Karolina Dziugaite, Kyle Hsu, Waseem Gharbieh, Gabriel Arpino, Daniel M Roy

International Conference on Artificial Intelligence and Statistics (AISTATS)

service

peer review

**denotes outstanding reviewer award*

International Conference on Learning Representations (ICLR) 2021*, 2022, 2023*

International Conference on Machine Learning (ICML) 2020, 2021, 2022

Neural Information Processing Systems (NeurIPS) 2019, 2020, 2021, 2022, 2023

International Conference on Artificial Intelligence and Statistics (AISTATS) 2021

Reinforcement Learning Conference (RLC) 2024

Stanford University

Stanford, CA, USA

Student Reader, Computer Science PhD Admissions Committee 2021, 2023

Section Leader, Code in Place 2021

Mentor, Computer Science Mentoring Program 2020, 2021

Reviewer, Student-ApPLICANT Support Program 2020

University of Toronto

Toronto, ON, Canada

Mentor, NSight Mentorship Program 2017, 2018, 2019

Group "Leedur", Engineering Orientation Week 2016, 2019

Director of Business Development, You're Next Career Network 2017

Undergraduate Engineering Journal Editor, Galbraith Society 2016

teaching

Stanford University

Stanford, CA, USA

Teaching Assistant, CS 330: Deep Multi-Task and Meta Learning 2021, 2022

mentorship

Isabel Sieh (Stanford BS)

Ishikaa Lunawat (Stanford MS)

Jubayer Ibn Hamid (Stanford BS)

Moo Jin Kim (Stanford MS, now Stanford PhD)

skills and interests

technical skills

code: Python, JAX, PyTorch, C++, git, \LaTeX

dissemination: technical writing & figure-making, Keynote, basic web design & video editing

misc. skills

bilingual (Mandarin)

hobbies

ski & snowboard, Soulslike & board games, SCUBA