

Lisa Lee

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Education

Carnegie Mellon University, School of Computer Science

Pittsburgh, PA

Ph.D., Machine Learning

Sept. 2016 - July 2021

- PhD thesis on deep reinforcement learning and robotics. Advised by [Ruslan Salakhutdinov](#) and [Eric Xing](#)

Princeton University

Princeton, NJ

A.B., Mathematics, *summa cum laude*

Sept. 2011 - June 2015

- Senior thesis advised by [Sanjeev Arora](#)
- Coursework: Algorithms & Complexity, Statistical Machine Learning, Artificial Intelligence, Real Analysis, Complex Analysis, Fourier Analysis, Combinatorics, Graph Theory, Game Theory, Abstract Algebra, Linear Algebra, Coxeter Group Theory, Multivariate Calculus, Information Security, Programming Systems, Advanced Programming Techniques, Algorithms & Data Structures

Employment

DeepMind

London, UK

Research Scientist Intern with [Nicolas Heess](#)

Feb 2021 - June 2021

Google Brain Robotics

Mountain View, CA

Research Intern & Visiting Student Researcher with [Shane Gu](#) and [Chelsea Finn](#)

June 2019 - Oct 2020

Stanford University, Computer Science Department

Stanford, CA

Visiting Student Researcher in [Chelsea Finn](#)'s lab

Fall 2015, Sep. 2019 - Jan. 2020

Google Research & Machine Intelligence

Mountain View, CA

Research Intern in [Ray Kurweil](#)'s NLP team

May 2017 - Aug. 2017

Google

Mountain View, CA

Full-time Software Engineer

Aug. 2015 - Aug. 2016

- Led, designed, and implemented the Play i18n Clusters Experiment, which expands the existing Android app clusters to 15 countries.
- Wrote 94.6k lines of code, 390 changelists (C++, Java, Borg, Python, Shell). Received 3 Peer Bonuses, 1 Kudos. (2016)

Program Committees

I was a **Workflow Chair** for [2019 International Conference on Machine Learning \(ICML 2019\)](#).

- Served as the primary communicator for organizing the main ICML 2019 conference.
- Coordinated with Senior Area Chairs, Area Chairs, Reviewers, and Workshop Chairs for the entire paper reviewing process.

I **co-organized NeurIPS 2019 workshop** on [Learning with Rich Experience \(LIRE\): Integration of Learning Paradigms](#).

I **co-organized ICML 2018 workshop** on [Theoretical Foundations and Applications of Deep Generative Models \(TADGM\)](#).

I served as a **reviewer** for ICML (2021, 2020), ICLR (2021, 2020), NeurIPS (2020, 2019), CVPR (2018), UAI (2019), NeurIPS Deep RL Workshop (2019, 2020).

I founded and co-organized the **RL Reading Group** at Carnegie Mellon University (Spring 2018 - Spring 2020).

Machine Learning Research

Lisa Lee*, Ben Eysenbach, Ruslan Salakhutdinov, Shane Gu, Chelsea Finn. [Weakly-supervised Reinforcement Learning for Controllable Behavior](#). **NeurIPS 2020**.

Tianwei Ni, Harshit Sikchi, Yufei Wang, Tejus Gupta, Ben Eysenbach, **Lisa Lee**. [f-IRL: Inverse Reinforcement Learning via State Marginal Matching](#). **CoRL 2020**.

Lisa Lee*, Ben Eysenbach*, Emilio Parisotto*, Eric Xing, Sergey Levine, Ruslan Salakhutdinov. [Efficient Exploration via State Marginal Matching](#). Presented as **two Contributed Talks at ICLR 2019 Workshops** on SPiRL and TARL.

Lisa Lee*, Emilio Parisotto*, Devendra Chaplot, Ruslan Salakhutdinov. [Gated Path Planning Networks](#). **ICML 2018**. Talk: <https://youtu.be/Pnnp1-Dr5lk>

Devendra Chaplot, **Lisa Lee**, Ruslan Salakhutdinov, Devi Parikh, Dhruv Batra. [Embodied Multimodal Multitask Learning](#). **IJCAI 2020**.

Xiaodan Liang, **Lisa Lee**, Wei Dai, Eric Xing. [Dual Motion GAN for Future-Flow Embedded Video Prediction](#). **ICCV 2017**.

Xiaodan Liang, **Lisa Lee**, Eric Xing. [Deep Variation-structured Reinforcement Learning for Visual Relationship & Attribute Detection](#). **Spotlight Paper at CVPR 2017** in Honolulu, HI. Talk: https://youtu.be/_i0SVaBenyw

A. Pavlo, M. Butrovich, A. Joshi, L. Ma, P. Menon, D. van Aken, **Lisa Lee**, R. Salakhutdinov. [External vs. Internal: An Essay on Machine Learning Agents for Autonomous Database Management Systems](#). **IEEE CSTC on Data Engineering 2019**.

Lisa Lee*, Maruan Al-Shedivat*, Ruslan Salakhutdinov, Eric Xing. [On the Complexity of Exploration in Goal-Driven Navigation](#). **NIPS 2018 Workshop** on Relational Representation Learning.

Yohan Jo*, **Lisa Lee***, Shruti Palaskar. [Combining LSTM and Latent Topic Modeling for Mortality Prediction](#). *arXiv 2017*.

Lisa Lee. [On the Linear Algebraic Structure of Distributed Word Representations](#). *Senior thesis at Princeton University, 2015. Advised by Sanjeev Arora. Thesis defense presentation at Princeton University (May 8, 2015).*

Lisa Lee. [Robotic Search & Rescue via Online Multi-Task Reinforcement Learning](#). *2014 NSF REU at UPenn GRASP Lab. Presented at Regional REU Site Symposium in Lehigh University (Jul. 10, 2014) and GRASP Robotics Lab, University of Pennsylvania (Aug. 5, 2014).*

Mathematics Research

Lisa Lee. [Recognizing signed-graphic matroids](#). *Junior-year thesis at Princeton University, 2014.*

Lisa Lee. [Coxeter matroids](#). *Expository paper for junior seminar on Coxeter groups, Fall 2013.*

Lisa Lee, Mariya Sardarli. [On the unimodality conjecture for chromatic polynomials of matroids](#). *Princeton University, 2013.*

Teaching

Carnegie Mellon University, Machine Learning Department

Pittsburgh, PA

Awarded **2018 TA of the Year** for [Deep Reinforcement Learning](#) (Spring 2018) and **2019 TA of the Year** for [Probabilistic Graphical Models](#) (Spring 2019).

2018-2019

Princeton University

Princeton, NJ

TA for Honors Real Analysis (MAT 215), Honors Linear Algebra (MAT 217), Intro to CS (COS 126), Algorithms and Data Structures (COS 226), Intro to Programming Systems (COS 126)

Sept. 2013 - May 2015

Selected Honors & Awards

2020 **Facebook Fellowship Program, Finalist**

2019 **TA of the Year (Probabilistic Graphical Models, Spring 2019)**, CMU Machine Learning Department

2018 **Microsoft Research PhD Fellowship, Finalist**

2018 **National Science Foundation Graduate Research Fellowship Program (NSF GRFP)**

2018 **TA of the Year (Deep Reinforcement Learning, Spring 2018)**, CMU Machine Learning Department

2017 **National Physical Sciences Consortium Fellowship**

2015 **Summa cum laude**, Mathematics Department, Princeton University

2014 **National Science Foundation Research Experience for Undergraduates (NSF REU)**, UPenn GRASP Robotics Lab

2013 **Princeton Math Summer Research Scholarship**, Mathematics Department, Princeton University