### **Dhruv Sreenivas**

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**EDUCATION** 

Cornell University
M.S. Computer Science
Aug 2021 - May 2023

B.S. Computer Science, Mathematics GPA: 3.66/4.0 Aug 2018 - May 2021

## **PUBLICATIONS**

• Mitigating Covariate Shift in Imitation Learning via Offline Data Without Great Coverage
Jonathan Chang, Masatoshi Uehara, Dhruv Sreenivas, Rahul Kidambi, Wen Sun (in submission to NeurIPS 2021)

#### RESEARCH EXPERIENCE

## Mila - Quebec AI Institute

Montreal, QC (remote)

Apr 2021 - Present

Research Collaborator

- Doing reinforcement learning research for the LambdaZero project
- Advised by Profs. Doina Precup and Yoshua Bengio

## Cornell University - Prof. Wen Sun

Ithaca, NY

Undergraduate/Graduate Researcher

Sep 2020 - Present

- Fall 2020: Joint representation learning in imitation learning settings with high-dimensional state spaces
  - Jointly learned rich features of states, as well as a linear reward function on said features
  - Algorithm performed considerably better than SOTA imitation learning algorithms (DRIL/SQIL) in environments with stochastic transitions/sticky actions
- Spring 2021: Model-based offline imitation learning
- Starting Fall 2021, will begin graduate research in Prof. Sun's lab

#### Cornell University - Prof. Claire Cardie

Ithaca, NY

Undergraduate Researcher

Feb 2020 - Apr 2020

- Worked on an argument generation research project
- Developed sequence-to-sequence BERT-based neural network models in PyTorch to determine most impactful features of good arguments (experience ended early due to COVID-19)

### INDUSTRY EXPERIENCE

Amazon Web Services Boston, MA

Software Development Engineer Intern

 $Jun\ 2021 - Aug\ 2021$ 

- Worked on AWS Boost team, aggregating seller data and developing a performance metric to rank sellers on the platform
- Developed a UI for sellers to see how well they're doing

# **Cornell Cup Robotics**

Ithaca, NY

Machine Learning Team Member

Oct 2020 - May 2021

- Used Haystack API from DeepSet AI to develop scalable chatbot Q/A system for R2D2-like robot
- Chatbot is meant to answer questions about Cornell, Star Wars, and relevant news
- Offloaded all heavy-compute machine learning systems for Chatbot onto AWS server to ease workload for main machine

Polici
Machine Learning Intern

Ithaca, NY (remote)

 $Jun\ 2020 - Aug\ 2020$ 

- Worked to summarize research articles using simple machine learning, deep learning, and NLP techniques
- Utilized SciKit-Learn and TensorFlow neural network models combined with Hidden Markov models for best results

VMware Inc.

Palo Alto, CA (remote)

Jun 2020 - Aug 2020

Data Science Intern

- Did data analysis comparing scores from a VMware risk engine with risk scores for devices from a security company
- Constructed random forest models to determine which device features were most indicative of riskiness

• Worked with a few coworkers on sentiment analysis project

## **COURSEWORK**

### Undergraduate Courses

- OOP & Data Structures (CS 2110)
- Functional Programming (CS 3110)
- Machine Learning (CS 4780)
- Large Scale ML (CS 4787)
- Undergraduate Computer Vision (CS 4670)
- Algorithms (CS 4820)
- Systems Programming (CS 3410)
- Operating Systems (CS 4410)
- Combinatorics (MATH 4410)
- Number Theory (MATH 3320)
- Intro Analysis (MATH 3110)
- Applicable Algebra (MATH 3360)
- Game Theory (ECON 3801)

## **TEACHING**

• Fall 2021: Graduate TA for CS 2110

## NOTABLE AWARDS

- AIME Qualifier (2015-2018) (8/15 on 2017 exam)
- 68th in Massachusetts Mathematical Olympiad (2014)
- AP Scholar with Honor
- National Merit Finalist
- Presidential Scholars nominee

## **SKILLS**

Languages: Python, Java, OCaml, C++, C, LATEX

Libraries/Frameworks: PyTorch, TensorFlow, NumPy, Pandas, SKLearn, PySpark, OpenCV, Git, learning JAX

Operating Systems: MacOS, Linux

# Graduate Courses

- Foundations of Reinforcement Learning (CS 6789, audited)
- Deep Generative Models (CS 6785, audited)
- Graduate Computer Vision (CS 6670, Fall 2021)
- Advanced Machine Learning Systems (CS 6787, Fall 2021)