### **Dhruv Sreenivas**

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**EDUCATION** 

Cornell University
M.S. Computer Science
GPA: 4.30/4.0

Ithaca, NY Aug 2021 - May 2023 Advisors: Wen Sun, Robert Kleinberg

 $B.S.\ Computer\ Science,\ Mathematics$ 

Aug 2018 - May 2021

GPA: 3.66/4.0

# **PUBLICATIONS**

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

#### RESEARCH EXPERIENCE

## Mila - Quebec AI Institute

Montreal, QC (remote)

Research Collaborator

Apr 2021 - Present

- Doing reinforcement learning research for the LambdaZero project, currently looking into ways to stabilize exploratory algorithms in the drug discovery setting using epistemic uncertainty estimation
- 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
- Spring 2021: Model-based offline imitation learning
- Fall 2021/Spring 2022: More representation learning in the IL setting, IL in computer graphics applications

#### 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

Microsoft Seattle, WA

Software Engineering Intern

 $Jun\ 2022 - Aug\ 2022$ 

• ONNX machine learning optimization

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)

• Worked to summarize research articles using simple machine learning, deep learning, and NLP techniques

 $Jun\ 2020 - Aug\ 2020$ 

• Utilized SciKit-Learn and TensorFlow neural network models combined with Hidden Markov models for best results

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)

# Graduate Courses

- Foundations of Reinforcement Learning (CS 6789)
- Graduate Computer Vision (CS 6670)
- Advanced Machine Learning Systems (CS 6787)
- Deep Generative Models (CS 6785, Spring 2022)
- Advanced Topics in Machine Learning (CS 6784, Spring 2022)

#### **TEACHING**

- Fall 2021: Graduate TA for CS 2110 (OOP & Data Structures)
- Spring 2022: Graduate TA for CS 4789 (Introduction to Reinforcement Learning)

# NOTABLE AWARDS

- AIME Qualifier (2015-2018) (8/15 on 2017 exam)
- 68th in Massachusetts Mathematical Olympiad (2014)

## **SKILLS**

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

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

Operating Systems: MacOS, Linux