Dhruv Sreenivas

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EDUCATION

Cornell University
M.S. Computer Science

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

GPA: 4.30/4.0

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

Apple Cupertino, CA

Research Intern May 2022 – Aug 2022

- Imitation learning as a starting point for exploration & offline skill discovery research
- Advised by Walter Talbott, Josh Susskind, Alexander Toshev and R Devon Hjelm

Mila - Quebec AI Institute

Montreal, QC (remote)

Research Collaborator

Apr 2021 - Mar 2022

- 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

- \bullet 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

Ithaca, NY (remote)

 $Jun\ 2020 - Aug\ 2020$

Machine Learning Intern

• 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

Data Science Intern

VMware Inc.

Palo Alto, CA (remote) Jun 2020 – Aug 2020

• 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

 $\textbf{Languages:} \ \ Python, \ Java, \ OCaml, \ C++, \ C, \ \LaTeX$

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

Operating Systems: MacOS, Linux