Dhruv Sreenivas

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EDUCATION

Cornell University — Ithaca, NY
M.S. Computer Science — Aug 2021 - May 2023
GPA: 4.30/4.0 — 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

Apple — Cupertino, CA
Research Intern — May 2022 – Aug 2022
- Reinforcement learning and computer vision for robotics
- Advised by Walter Talbott, Miguel Ángel Bautista and Josh Susskind

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
- 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)
Machine Learning Intern — 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)
Data Science Intern 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

Languages: Python, Java, OCaml, C++, C, LaTeX
Libraries/Frameworks: PyTorch, TensorFlow, NumPy, Pandas, SKLearn, PySpark, OpenCV, Git, learning JAX
Operating Systems: MacOS, Linux