DANIEL RITTER
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EDUCATION

May, 2021 BA in Computer Science, BA in Political Science, Brown University. Cumulative GPA: 4.0, Graduated Magna Cum Laude and Phi Beta Kappa

August, 2022 (anticipated) MSc in Advanced Computer Science, Oxford University

WORK EXPERIENCE

Brown University | Providence, RI | June 2020 – 2021

Teaching Assistant for CS1470(Deep Learning) *September 2019 – December2019*

- Assisted in developing and grading course material slides and assignments
- Held weekly TA hours and labs to help students better understand the course material

Head Teaching Assistant for CS0030(Computation for the Social Sciences and Humanities)
September 2019 – December 2019

- Managed undergraduate TA staff for the course
- Allocated office hours and student resources

Teaching Assistant for CS1420(Machine Learning) *January 2021 – Present*

- Held weekly office hours to help students with course material
- Created and graded course assignments and projects

Kern Systems | Boston, MA | June 2020 – August 2020

Machine Learning Fellow *June 2020 – August 2020*

- Worked to create machine learning based compression systems for use in a DNA storage pipeline.
- Assisted in research on applying machine learning and AI methods to biodesign problems like protein search and functional fitness landscape estimation.

Perspectum Diagnostics | San Francisco, CA / Oxford, UK | June 2019 – August 2019

Image Analysis Intern *June 2019 – August 2019*

- Worked to develop and implement algorithms for automated processing of digitized pathology slides using deep/machine learning methods.
- Improved automated nuclei detection in biopsy slides significantly by replacing the original semantic segmentation algorithm(U-Net) with a more complex instance segmentation architecture(Mask-RCNN), solving a common failure case involving classification of overlapping nuclei.

RESEARCH EXPERIENCE

Oxford University | October 2021 – Present

Master's Dissertation *October, 2021- Present*

- Currently working on a dissertation involving applying uncertainty methods to large language models. The goal, broadly, is to characterize the conditions under which language models may learn spurious correlations from data rather than more robust features.

Brown University | September 2018 – 2021

Honors Thesis *September, 2020-2021*

- Wrote a senior thesis focused on multiagent reinforcement learning and bounded computation in game-theoretic reasoning

DeepLTLf *September, 2019 - May 2021*

- Developed a specialized neural architecture for learning linear temporal logic formulae from example data.

Starcraft II ExAI Project *September, 2018- May 2019*

- Worked as part of the DARPA ExAI project to design a reinforcement learning agent capable of playing the RTS game Starcraft II