

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

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

WORK EXPERIENCE

Brown University | Providence, RI | June 2020 – Present

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

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

**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

Brown University | September 2018 – Present

**Honors Thesis** September, 2020-2021

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

**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

SKILLS, INTERESTS AND OTHER ACHIEVEMENTS

- Fluent in Java, C, Python
- Comfortable with Javascript, HTML, CSS, Pytorch, Tensorflow, Keras, ROS, UNIX systems
- Jazz and classical piano