

DANIEL RITTER

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EDUCATION

Brown University

May, 2021(anticipated) Bachelor of Arts in Computer Science, Bachelor of Arts in Political Science

- Current GPA: 4.0
- Current Coursework: Sequential Decision Making(Reinforcement Learning), Artificial Intelligence
- Prior Coursework: Data Structures and Algorithms, Object-Oriented Programming, Multivariable Calculus, Linear Algebra, Systems Programming, Statistics and Probability, Machine Learning, Discrete Mathematics

WORK EXPERIENCE

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 approach with a more complex deep learning architecture, solving a common failure case involving classification of overlapping nuclei.
- Processed and prepared statistics for biopsy cases used in a publication comparing automated pathology methods to standard pathologist grading systems.
- Developed a presentation explaining the results of a liver iron and genetics research study, and presented these results at a company meeting.

Brown University | Providence, Rhode Island | August 2019 – Present

Undergraduate Teaching Assistant for CS1470(Deep Learning) August 2019 - Present

- Assist in developing course material slides and assignments
- Hold weekly TA hours and labs to help students better understand the course material
- Grade and evaluate student assignments on a weekly basis

Head Teaching Assistant for CS0030(Introduction to Computing for the Social Sciences) January 2020 – May 2020

- Manage undergraduate TA staff for the course
- Allocate office hours and student resources and hold weekly office hours to help students with course material
- Create and grade course assignments and projects

RESEARCH EXPERIENCE

Starcraft II ExAI Project September, 2018-Present

- Working as part of the DARPA ExAI project to design a reinforcement learning agent capable of playing the RTS game Starcraft II
- Assisted in designing and implementing a multiprocessed Actor-Critic system which has already achieved human-comparable scores on several Starcraft II mini-games

Joy for All Companion Pet Project September, 2018-Present

- Assisting in improving the capabilities of Hasbro's Joy for All robotic companion pets, using deep learning object recognition and computer vision mapping software

SKILLS, INTERESTS AND OTHER ACHIEVEMENTS

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