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

November, 2022 MSc in Advanced Computer Science, The University of Oxford

WORK EXPERIENCE

Harvard Medical School | Boston, MA | 2022 – 2023

Research Assistant/Software Engineer in the Debbie Marks Lab *September 2022 – Present*

- Applying and developing machine learning models for biological sequences (primarily proteins and viruses).
- Assisted in benchmarking a hybrid approach to modeling protein fitness (workshop paper available at this link)
- Currently developing a large-scale benchmark for evaluating machine learning protein fitness models.

Brown University | Providence, RI | 2019 – 2021

Teaching Assistant *September 2019 – May 2021*

- Assisted in developing and grading course material slides and assignments
- Held weekly TA hours and labs to help students better understand the course material
- Managed undergraduate TA staff as a head teaching assistant

Kern Systems | Boston, MA | 2020 – 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 fitness landscape estimation.

Perspectum Diagnostics | San Francisco, CA / Oxford, UK | 2019 – 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).

RESEARCH EXPERIENCE

Oxford University | 2021 – 2022

Master's Dissertation *October, 2021- October, 2022*

- Wrote a dissertation on the evaluation of the effectiveness of various interpretability methods for large language models, and particularly how the scaling of language models impacts explanation quality.

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. Paper available at https://arxiv.org/abs/2111.04147.