Trevor P. Martin

(908) 721-8216 | tmartin2@oberlin.edu | github.com/tmartin2

Education

Oberlin College, Oberlin, OH January 2022
Bachelor of Arts in Mathematics and Neuroscience

Relevant Coursework: Probabilistic Modeling and Machine Learning, Statistical Modeling, Recommender Systems, Deep Learning, Cognitive Neuroscience, Moral Philosophy, Linear Optimization, Organic Chemistry, Probability

Research Experience

University of Colorado, Colorado Springs, CO | Research Intern July 2021 - Present
Worked under Dr. Oluwatosin Oluwadare to develop an ensemble deep learning model in TensorFlow for the task of splice site prediction. Submitting for review in the journal *BMC Bioinformatics*.

Invincible Wellbeing, Remote | Research Fellow August 2021 - December 2021
Web-scraped and organized taxa of the phylum Chordata and of Milo et al.'s biomass class groups to estimate an upper bound of global suffering (approximated by global neuron count). Developed models using encephalization quotients to estimate neuron counts from carbon biomass.

ML Reproducibility Challenge, Papers with Code Fall 2020, Present
Reproducing: *Sparsity in Deep Learning: Pruning and growth for efficient inference and training*
Attempted reproduction of: *Does Unsupervised Architecture Representation Learning Help NAS?*.

Oberlin College, Oberlin, OH | Research Assistant August 2020 - February 2021
Worked under Dr. Christopher Howard to automate data visualization and analysis of behavioral markers for mouse intracranial self- stimulation datasets. Implemented pure drift diffusion to model mouse decision making in timed interval decision tasks.

Oberlin College, Oberlin, OH | Research Assistant August 2019 - December 2019
Worked under Dr. Adam Eck to implement novel cluster-based undersampling techniques on imbalanced data sets to reduce class imbalance and improve performance of classification models on minority features.

Indiana University, Bloomington, IN | Research Intern May 2019 - July 2019
Worked under Dr. David Crandall to train CNNs to detect key points of human hands from 2D images. Worked towards integrating this model with existing hand-object detection baselines. This architecture was used to reconstruct hands in 3D from videos of hand-object interactions.

Relevant to EA

Effective Altruism September 2018 – Present
Helped to create a local EA organization (Effective Altruism Oberlin, 2018-Present); donate 10% of my income to effective charities (Giving What We Can Pledge); avidly consume EA-Forum and LessWrong content, occasionally post. See @rodeo_flagellum (LW/EAF).

Metaculus June 2021 - Present
3136 predictions on 897 questions; avg. Brier score = 0.071; rank = 110/∼8000 forecasters; Author of multiple questions on bioengineering, polygenic screening, embryo selection, and gene-editing. Ranks (6/45), (12/149), (6/67) in the Influenza, Keep Virginia Safe, Pandemic Decision Making Tournaments, respectively. See @rodeo_flagellum.

PTC Therapeutics, Remote | Contract Worker May 2019 - December 2019
Developed ML models using TensorFlow to predict pharmacokinetic properties of chemical compounds. These models were incorporated into the company's drug discovery pipeline.

Technical Skills

- Programming: **Python**, **R**, HTML/CSS/JS
- Writing: LaTeX, Markdown, Pandoc
- ML: TensorFlow, Keras, Scikit-Learn, Numpy, Pandas, Matplotlib, Seaborn, BeautifulSoup

Honors

John Frederick Oberlin Scholarship – *awarded by Oberlin College to top 10% of incoming freshman*