

MILES TURPIN

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EDUCATION

Duke University

expected May 2020

B.S. in Data Science, B.S. in Mathematics, Minor in Philosophy — Cumulative GPA: 3.3

- Relevant coursework: *High Dimensional Data* — *Artificial Intelligence* — *Data Science* — *Statistics* — *Databases* — *Algorithms* — *Data Structures & Algorithms* — *Advanced Probability* — *Discrete Math* — *Linear Algebra* — *Multivariable Calculus* — *Complex Systems @ MIT*
- Spring coursework: *Machine Learning (Graduate level)* — *Bayesian Statistics*
- Honors: Judge's Pick at American Statistical Association DataFest at Duke

Spring 2018

RESEARCH EXPERIENCE

Dynamic Risk Prediction

June 2018 - Present

Carin Research Group, Information Initiative at Duke (iID) & Duke Surgery

Durham, NC

- Building machine learning models on time series EHR data to predict likelihood of emergency surgery for patients with a severe stomach complication (SBO), advised by Dr. Lawrence Carin and Dr. Matthew Englehard. *Paper forthcoming.*
- Compiled the largest and most detailed dataset of SBO patients for analysis.

Plasmid Attribution: Toward Accountability in Genetic Engineering

June 2018 - Sept 2018

Future of Humanity Institute, Oxford University

- Used machine learning to identify lab-specific signatures of engineered DNA to predict its lab-of-origin. *Paper forthcoming* – *Plasmid Attribution: Toward Accountability in Genetic Engineering.*
- Beat the state-of-the-art by 20 points (68% accuracy).
- Leveraged AWS for parallel web scraping and model training

Industry Activity by US Metropolitan Area

April 2018

Judge's Pick

Duke University

- Identified industry hotspots across US metropolitan areas using job posting data from Indeed; see Github.
- Awarded Judge's Pick at American Statistical Association DataFest at Duke. Competed against over 400 students, over half of which were Master's students.

TECHNICAL SKILLS

Programming Languages

Python, R, SQL, Scheme

Software & Packages

Tensorflow, Scikit-learn, Pandas, Numpy, Matplotlib, Git, Tableau

ACTIVITIES & LEADERSHIP

Effective Altruism: Duke

Spring 2017 - Present

President

Duke University

- Created and currently run the first iteration of the Arete Fellowship, a selective program offering an accelerated introduction to Effective Altruism for students who are motivated to think rationally about how to have a significant positive impact on the world. See eaduke.org/faq.
- Coordinated activities resulting in 9 people taking the Giving What We Can pledge (donating 10% of future income to effective charities).

Philosophy Society

Spring 2017 - Present

Exec Member

Duke University

- Organized a discussion between two prominent philosophers on the existence of God, attended by 100+ students

Duke Triathlon

Fall 2017 - Present

- Completed an Ironman 70.3 in Patagonia in March 2018