Max Tell

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Education

Massachusetts Institute of Technology **Cambridge, MA**
Candidate for Masters of Engineering in Computer Science August 2021 - December 2022

Massachusetts Institute of Technology **Cambridge, MA**
Candidate for Bachelor of Science in Computer Science August 2017 - June 2021
GPA: 4.7/5.0

Relevant Coursework: Machine Learning • Inference and Information • Mathematical Economic Modeling • Fundamentals of Statistics • Market Design • Advances in Computer Vision • Design and Analysis Algorithms • Probability and Random Variables • Matrix Methods • Macroeconomics • Microeconomics

Experience and Research

CSAIL - Economics and Computation Group ‖*Undergraduate Researcher* **Cambridge, MA**
- Investigating the application of optimization algorithms with provable convergence guarantees to competitive multi-agent reinforcement learning tasks February 2021 - Present

Microsoft ‖*Software Engineering Intern* **Cambridge, MA**
- Built interpretability tools for NLP models via extensions of Shapley additive explanations(SHAP) January 2021 - February 2021
- Implemented support for text entailment to open source repository(github.com/slundberg/shap)

CSAIL - Computational Biology Group ‖*Undergraduate Researcher* **Cambridge, MA**
- Developed machine learning models to classify single nucleotide variants across coding and non-coding DNA of the human genome September 2020 - December 2020
- Implemented methods from literature for high-dimensional gene regulatory network embedding and scoring

Facebook AI ‖ *Software Engineer Intern* **Menlo Park, CA**
- Applied representation learning algorithms such as StarSpace and metapath2vec on large-scale heterogeneous graphs May 2020 - August 2020
- Designed embedding learning models that will drive future production systems

SESCO Enterprises ‖ *Data Science Extern* **Greensburg, PA**
- Built a subclass of PyTorch Tensors enabling the naming of Tensor axes and indices, as well as advanced indexing on these names January - February 2020
- Developed feature-wise attention mechanism to handle multiple keys and a single query

Projects

Pokerbots Competition **Cambridge, MA**
- Created agent to play a variant of No Limit Texas Hold'em January 2019
- Implemented machine learning models to predict opponent strategy, as well as a variant of Monte Carlo CFR to generate approximately game-theory optimal strategy profiles in an abstracted game tree

Activities

Gordon-MIT Engineering Leadership Program **Cambridge, MA**
- Participated in selective leader development program focused on cultivating the leadership skills that drive successful engineering teams in industry September 2019 - May 2020

Delta Tau Delta Fraternity **Boston, MA**
- Social Chairman, Alumni Relations Chairman September 2018 - Present

Rowing **Cambridge, MA**
- D1 Rower at MIT, High School Scholastic National Champion September 2013 - January 2018

Programming Skills

Languages: Python, Java, R, C++, Javascript
Technologies: Pytorch, Caffe2, Tensorflow, Keras, Numpy, Pandas, Scikit-learn, AWS, Docker, Arduino, Git, Convnetjs, Terminal, Linux, Windows, MacOS