Michael Truell

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EDUCATION

Horace Mann School, Bronx, NY   Class of 2018
· 4.0 Unscaled GPA

EXPERIENCE

Research Intern, MIT Probabilistic Computing Group   June 2017 - August 2017
· Software engineering on a low-latency Bayesian non-parametric inference engine
· Worked to extend the abilities of the lab's BayesDB probabilistic computing platform
· Member of the RSI program; recognized as a Department of Defense Scholar

Software Engineering Intern, Two Sigma Investments   June 2016 - March 2017
· Co-founded and co-developed Two Sigma's "Halite" online programming competition (https://halite.io)
· Competition drew 7,000+ users from 110 countries who submitted 50,000+ unique bots
· Project attracted 60+ individual contributors on Github
· Two Sigma's first high school intern (age of 15)

Independent Reinforcement Learning Researcher   June 2015 - May 2016
· Augmented the Q-learning algorithm with intelligent action and model selection
· System learned desired actions from human operators in minutes
· Algorithm 4x less data than Q-learning based implementations
· Spun of codebase into an open-source library; gained 350+ stars

AWARDS & HONORS

Intel ISEF Grand Award: Second Award in Robotics and Intelligent Machines
Intel ISEF Special Award: Second Award, National Aeronautics and Space Administration (NASA)
Intel ISEF Special Award: First Award, CERN (award included a week at the CERN campus)
New York City Science and Engineering Fair (NYCSEF): First Prize in Computer Science
Intel Excellence in Computer Science Award
American Computer Science League Perfect Programming Score at Nationals

ACTIVITIES & LEADERSHIP

Horace Mann FRC Robotics, *Head of Programming and Electronics*   2015 - 2017
Horace Mann American Computer Science League, *Co-captain*   2015 - 2017
Horace Mann Programming Club, *Co-captain*   2015 - 2017

PUBLICATIONS

Truell, M., Spector, B. (2017). *The Design and Implementation of Modern Online Programming Competitions.* Submitted to the Foundations of Digital Games Conference 2018.

Truell, M., Gruenstein, J. (2016). *A Universal Robot Control System Using Reinforcement Learning with Limited Feedback.* Poster presented at ISEF 2016, Phoenix, Arizona.

SKILLS

Software	Python, Java, C++, PHP, JS, HTML, Angular, LAMP, Flask, Docker
Hardware	OpenSCAD, AVR, ESP8266, NI
Machine Learning	Reinforcement Learning, Evolutionary Algorithms, Bayesian Nonparametrics