Brian Xie

450 Memorial Drive, Cambridge, MA 02139
(510) 326 2468 | brianxie@mit.edu | mit.edu/brianxie/www

EDUCATION

Massachusetts Institute of Technology (MIT) **June 2020**

- *Major*: Computer Science and Engineering (6-3), GPA: 5.0/5.0
- *Coursework*: Machine Learning (G), Design and Analysis of Algorithms, Software Engineering, Computer Systems Engineering, Stochastic Processes (G), Game Theory

PROJECTS/EXPERIENCE

Synapse Technology Corporation **January 2018**
Computer Vision Engineer *Palo Alto, CA*

- Developed deep learning architectures to improve accuracy of Synapse's automated threat detection system deployed at security checkpoints.
- Revamped Tensorflow's object detection API to perform joint inference of dual-view x-ray images by enforcing consistency between detections of both views.

Affinity, MIT Media Lab **Feb – Aug 2017**
Student Researcher

- Optimized deep convolutional neural networks for virtual drug screening and discovery, by predicting binding affinities and interactions between proteins & small drug-like molecules.
- Used Tensorflow, Python, C++, and SQLite to construct an extendible, easy-to-use machine learning API for molecular geometry, complete with data, input pipes, networks, & models.

TeensyTetris **Mar – May 2017**

- Built Arduino IoT device with single and multiplayer Tetris
- Used Python and MySQL for server communication, to immediately send row clears and support ranking database. Used C/C++ to handle computations, state machine, and display.

Pokerbots Competition **January 2017**

- Constructed a poker-playing AI in a team of 3; won $500 prize for strategy report.
- Used Java to implement Counterfactual Regret Minimization, a reinforcement learning algorithm. Applied game theory concepts and statistical analysis to optimize performance and to reduce the number of model parameters.

MIT Poker Club **Sep 2016 – Current**
Co-president, Webmaster

- I manage our Django-based website and teach the annual IAP Poker Theory class. I also direct tournaments, talks, and workshops about poker, trading, and probability.

SKILLS/DISTINCTIONS

Skills Python, Tensorflow, Java, C/C++, SQL, HTML, Git

Distinctions **USA Physics Team Member** **May 2015**
USA Junior Math Olympiad, Honorable Mention **May 2014**