

# Rick Huang

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## EDUCATION

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY

**CANDIDATE FOR BACHELOR OF SCIENCE IN COMPUTER SCIENCE**

Sep 2015 - Expected Jun 2018 | Cambridge, MA | Cumulative GPA: 4.8

Relevant Coursework: 6.858 Computer Systems Security • 6.033 Computer Systems Engineering • 6.867 Machine Learning  
6.828 Operating Systems Engineering • 6.046 Design and Analysis of Algorithms • 18.100 Introduction to Analysis  
18.701 Abstract Algebra • 18.600 Probability and Random Variables • 18.200 Principles of Discrete Mathematics

## EXPERIENCE

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TWO SIGMA INVESTMENTS, LLC | **SOFTWARE ENGINEERING INTERN**

Jun 2017 - Aug 2017 | New York, NY

- Ported connection lines between modelers and trading exchanges written in C to a more modularized framework
- Implemented and deployed new connections to trading exchanges to production, complete with client connection validation
- Improved robustness of existing session handler to better tolerate connection behavior of exchanges based on TCP

FIVE RINGS CAPITAL, LLC | **TRADER INTERN**

Jan 2017 | New York, NY

- Investigated trends, generated analytics, and developed potential trading strategies for certain financial instruments
- Built modified neural networks, ensemble-based forests, and time-series models to analyze features within markets

BLOOMBERG L.P. | **SOFTWARE ENGINEERING INTERN**

May 2016 - Aug 2016 | New York, NY

- Designed a C++ system with custom graph data structures to both match and track historical buy and sell trades
- Constructed web user interface for client-based custom profit and loss formula input for consumption by backend system
- Built C++ backend calculation system for evaluating client-based custom profit and loss formulas given prematched trades

CORTINA ACCESS | **SOFTWARE ENGINEERING INTERN**

Jan 2016 | Santa Clara, CA

- Tested open source improvements to deep packet inspection and machine learning protocols for P2P packet identification

## PROJECTS

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PROBABILISTIC IMAGE SUPER-RESOLUTION

Dec 2016 | Massachusetts Institute of Technology

- Used Bayesian posterior modeling of Gaussian processes on multiple low-resolution patches of pixels for extrapolation
- Trained model in Python with Stan, a language that performs Bayesian inference with Markov chain Monte Carlo sampling

POT-LIMIT OMAHA HOLD'EM POKERBOT

Jan 2016 | Massachusetts Institute of Technology

- Produced an automated Pot-Limit Omaha poker bot in Python for 6.176, the 2016 MIT Pokerbots tournament
- Used Monte Carlo simulations for equity calculation and regression models for training actions based on opponent behavior
- Received first place in daily casino tournament, seventh place overall, and most creative strategy award from KCG Holdings

## ORGANIZATIONS

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TAU BETA PI | **MEMBER**

May 2017 - | Cambridge, MA

- Member of MIT's Tau Beta Pi Engineering Honor Society, initiated by ranking in the top eighth of computer science students

MIT POKER CLUB | **PRESIDENT**

Mar 2017 - | Cambridge, MA

- Responsible for managing tournaments, organizing company talks, and general body meetings for the MIT Poker Club
- Oversee sponsor communication, membership interview process, and responsibility distribution among current committee

ZETA BETA TAU | **EXECUTIVE COMMITTEE**

Aug 2016 - May 2017 | Brookline, MA

- Responsible for managing activities, general community relationships, and legislative administration for the brotherhood

## AWARDS

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2016 4th Place, MIT Fall Series of Poker Main Event

2016 1st Place, MIT Pokerbots Casino Tournament

2014 USA Math Olympiad Qualifier

2014 USA Physics Olympiad Semifinalist

2012 USA Computing Olympiad, Gold Division

## SKILLS

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**Proficient**

Python • Java • C • C++ • Mercurial • Git •  $\LaTeX$

NumPy • SciPy • Linux • Bash • Networks • Security

**Basic**

Javascript • HTML • CSS • Stan • Matlab • MySQL • R