# Evan Tey

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| EDUCATION | | |
|---|---|---|
| | **Massachusetts Institute of Technology** | |
| | Candidate for M. Eng. in Computer Science – 5.0/5.0 | June 2020 |
| | B.S. in Physics and Computer Science – 4.7/5.0 | June 2019 |

**EXPERIENCE**

**Generative Model for Stellar Spectra** – *Researcher, MIT* — Mar '19 – present
- todo

**Kensho** – *Part-Time Software Engineer* — Spring '19
- todo

**Project Invent** – *Winter Extern* — Jan '19
- Worked at an early-stage non-profit to bring invention education to teachers and students across the country
- Contributed to program design, strategy meetings, and fundraising development

**Bayesian Modeling of Supernovae** – *Researcher, Imperial College London* — Summer '18
- Developed and tested a hierarchical Bayesian model for selection effects in supernovae lightcurves to better infer parameters about our universe

**NuSTAR X-Ray Analysis of the Galactic Center** – *Researcher, MIT* — Sep '17 – Jun '18
- Analyzed high energy spectra near the Galactic Center to characterize and constrain dark matter candidates with Python, Sherpa, and HEAsoft software

**MIT Office of Open Learning** – *Data Science Researcher* — Jun '17 – Jan '18
- Prepared a student feedback tool for instructors to experiment on how various feedback impacts student behavior with Flask and Google BigQuery

**Indeed** – *Software Engineer Intern* — Summer '16
- Created a predictive data-driven decision-making system to increase SEO acquisition for job result pages with Java, Hadoop, Pig Latin, and Git

**Mathworks at Texas State University** – *Honors Summer Math Camp Counselor* — Summer '15
- Counseled a group of four high school students in Combinatorics and Real Analysis
- Ran additional review sessions and assisted a Mathematica class
- Worked with 15 other counselors to maintain a nurturing camp environment

**Mathworks at Texas State University** – *Research Assistant* — Summer '14
- Characterized negativity in hypergraph structure to enhance our understanding of deficiencies in neural / social / magnetic networks

**PROJECTS**

**Educational Telescope with VR** — Spring '18
- Building a real 10" f/5 Dobsonian telescope with additional sensors and a screen to emulate telescope usage for use on cloudy nights

**Consensus** — Spring '16
- Used the design process to lead a team of six in creating a live classroom tool that reduces confusion between students and teachers
- Interviewed teachers, then prototyped and tested several features before developing a simple webapp to track users, questions, and confusion in the classroom

**Align** — Spring '16
- Constructed a device to detect bad posture and give haptic feedback with flex sensors and an Arduino in a team of six

**Concrete Convolutional Neural Network Cryptosystem** — Fall '16
- Replicated and extended Google Brain's paper *Learning to Protect Communications with Adversarial Neural Cryptography* with a team of three

**3D Scanner**                                                                          Fall '16
- Built a 3D laser scanner to generate and display a point cloud from an object using an FPGA
- Rendered and allowed interaction with the point cloud through VGA output

**Pygmy ProSet**                                                                        Fall '15
- Created a live multiplayer version of the card game ProSet with NodeJS, socket.io, and JQuery

**LASA UIL Study Site**                                                                 Fall '14
- Developed a quizzing website to help novice CS students learn general programming principles
- Parsed PDFs of computer science tests to a question database using MongoDB, Javascript, NodeJS, Jade, and JQuery

TEACHING

**MIT Undergraduate Mathematics for Computer Science** – *Graduate TA*        Sep '19 – present
- todo

**MIT Spokes** – *Organizer & Participant*                                            Summer '19
- Biked across the country and taught STEM workshops at local schools / libraries with seven other MIT students

**Educational Studies Program** – *Admin*                                       Feb '16 – Jun '19
- Organized programs for middle/high schoolers to take classes from MIT students about anything from Surfboard Design to Quantum Mechanics to European Separatist Movements
- Directed Splash (over 2000 students and 500 teachers) through managing a 40 person admin team
- Taught classes on astronomy, statistical mechanics, algorithms, and more

**Undergraduate Math Department** – *Peer Tutor*                                 Feb '16 – Dec '17
- Tutored MIT undergraduates in single- and multi-variable calculus, differential equations, and linear algebra for 4 hours a week

**MIT Undergraduate Electricity & Magnetism** – *Undergraduate TA*                    Spring '17
- Coached MIT undergraduates through physics problems for 5 hours a week

**AP Computer Science** – *TA*                                                   Aug '13 – May '14
- Assisted AP Computer Science students during class by creating worksheets and helping students learn how to debug programs

**Scratch Camp** – *Cofounder*                                                        Spring '13
- Designed and ran a camp to stimulate computer science interest in Pearce Middle School students

AWARDS

**Larry G. Benedict Leadership Award** – *MIT Awards Convocation Awardee*              Spring '19
- Recognized for showing dedication for empowering my fellow students to develop as leaders

**8th Int'l Olympiad on Astronomy and Astrophysics** – *Honorable Mention*              Aug '14
- Represented the USA in theory, observation, and data analysis exams over ten days in Romania

SKILLS

**Hard**: Python, Jupyter, Numpy, Pandas, Tensorflow, Git, Javascript, Node, Java, Linux
**Soft**: Leadership, Data Science, Design Thinking, Rapid Prototyping
**Interests**: Stargazing, Education, Soccer, Food