

## education

Sept. '15– **Massachusetts Institute of Technology** Cambridge, MA  
*Candidate for Bachelors of Science in Mathematics & Computer Science (June 2019)*  
Coursework includes: Science, Technology, and Public Policy; Design and Analysis of Algorithms; Advanced Complexity Theory; Algebra II; Computation Structures; Combinatorial Theory; Advanced Algorithms; Machine Learning; Computer System Engineering; Introduction to Topology; Computer Language Engineering; Foundations of Information Policy; Interactive Music Systems; Number Theory I

'11–June '15 **International Bilingual School at Hsinchu-Science-Park** Hsinchu, Taiwan

## experience

Jul. '17–Aug. '17 **MIT Summer Program for Undergraduate Research** Student Researcher  
Investigated and simulated (with Python/Sage) algorithms for reconstructing information on trees of noisy channels, a model appearing in information theory, computational biology, and physics. Advised by Ashwin Narayan.

Oct. '16–present **MIT Educational Studies Program** Head webmin, Treasury (Dec '16–)  
Maintain and develop esp.mit.edu, a custom Django site for managing large short-term educational programs. The site serves 5,000+ students and 800+ teachers each year with sharp peaks in demand; its codebase is shared by similar programs across the country.

Jun. '16–Aug. '16 **Dropbox** Software Engineering Intern  
Implemented a business readiness feature on Dropbox Paper (a collaborative doc editor written in TypeScript), which allows administrators to sign in as team members. Added front-end editor features in React.js.

Nov. '15–present **Student Information Processing Board, MIT** Keyholder, Treasurer (Feb. '16–)  
Developed various Perl plugins for BarnOwl, an IM (zephyr) client. Worked on the SIPB office's music player protocol, also in Perl. Manage finances, budgeting, and office supplies.

Sep. '15–now **IDEA MATH** Teacher, Grader  
Assist and teach at a weekend mathematics enrichment program for middle- and high-school students for a class of about 15 students. Graded students' submissions to olympiad-level problems for an online course.

Jan.–Aug. '15 **Pointegrity** Programmer  
Worked on various projects, including a JavaScript parser and interpreter for a simple programming language designed for code education, and a domino puzzle game.

## leadership & activities

Sep. '17–present **Floor Pi** Hall chair  
Coordinated hall meetings, elections, rooming, and budget for a dorm floor of ~30 people.

Mar. '17 **Galactic Puzzle Hunt** Organizer, programmer  
Wrote puzzles for and helped administer a week-long online puzzlehunt, hosted on a custom Django site, in which ~300 teams participated.

Mar. '14–Jan. '15 **Random Fish, MIT** "Technomage" (programmer)  
Refactored and added functionality to Puzzletron (puzzle writing and editing software in PHP) in preparation for hosting the 2015 MIT Mystery Hunt.

## leadership & activities, cont.

- Oct. 2014 **MIGHTY (high-school program)** Lecturer  
Presented two 3-hour lessons introducing algorithms and programming competitions to a class of 10–15 at a weekend interdisciplinary class.
- July 2013 **IMOCamp** Student Teacher  
Prepared a mathematics lesson plan and problem set in combinatorics, and taught a morning session (about 3 hours) for a class of 30 at an unofficial mathematics olympiad enrichment camp held by former IMO contestants.

## awards

- 2017 **N. American Finalist** Cyber Security Awareness Week Capture-the-Flag
- 2016 **Silver medal team** ACM International Collegiate Programming Contest  
**Honorable Mention** William Lowell Putnam Mathematical Competition
- 2015 **Finalist (23rd)** Google Code Jam  
**Gold medal** Asian-Pacific Mathematical Olympiad
- 2014 **Participant** Summer Conference of Tournament of Towns  
**Gold medal** International Olympiad in Informatics  
**1st HS team** Internet Problem Solving Contest  
**Silver medal** Asia-Pacific Informatics Olympiad  
**4th place team** World Scholar's Cup, Taiwan Round
- 2013 **1st place team** National Problem Solving Contest on Internet  
**Silver medal** Asia-Pacific Mathematical Olympiad
- 2012 **Gold medal** International Mathematical Olympiad
- 2011 **Silver medal** International Mathematical Olympiad  
**First Prize** Tournament of Towns Senior Division
- 2009 **Silver medal** Shing-Tung Yau High School Mathematics Award

## languages

fluent English  
fluent Mandarin Chinese

## programming

Python (Django, Numpy, Mypy),  
JavaScript/TypeScript, Haskell,  
HTML/CSS, Git, Scala, Perl, Java,  
C/C++, PHP, L<sup>A</sup>T<sub>E</sub>X

## interests

puzzles, puzzlehunts, blogging,  
singing, guitar