

# Andrea Lin

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## EDUCATION

### Massachusetts Institute of Technology (MIT)

Cambridge, MA

- Candidate for a B.S. in Computer Science and Engineering
- GPA: 4.7/5.0

May 2022

• Relevant Coursework: Cryptography, Computer Systems Engineering, Algorithms, Theory of Computation, Software Construction, Machine Learning, Data Science, Microeconomics, Probability, Linear Algebra, Differential Equations

## TEACHING EXPERIENCE

### MIT 6.S060 Foundations of Computer Security

Cambridge, MA

*Lab Assistant*

September 2021-Present

- Evaluate and improve Python autograder tests for labs on implementing security protocols for systems like photo sharing apps
- Coordinate with professors to develop and grade problems that teach the theory of cryptography, including message authentication codes, digital signatures, public key encryption, and trust

### MIT 6.840 Theory of Computation

Cambridge, MA

*Grader*

September 2021-Present

### MIT 6.006 Introduction to Algorithms

Cambridge, MA

*Tutor*

Sep 2020-Dec 2020

### MIT Figure Skating Club

Cambridge, MA

*Intercollegiate Team Captain*

May 2019-May 2021

- Recruited MIT skaters for competitions and communicating with registration centers for the team

### Colorado Math Circle

Boulder, CO

*Teacher*

August 2014-June 2018

- Directed after-school math competition practice for groups of 4-6 students from urban middle school and home schools

## INDUSTRY EXPERIENCE

### Facebook

Menlo Park, CA

*Software Engineer Intern*

June 2021-September 2021

- Developed an integration test in Python to ensure the correctness and performance of the load balancer for internal services
- Analyzed and shared a report on the CPU and memory levels when draining traffic from a data center

*Software Engineer Intern*

May 2020-August 2020

- Full-stack web development on Instagram in desktop mode, using Django in Python, GraphQL, React.js, and Redux

*Facebook University Engineering Intern*

June 2019-August 2019

- Collaborated on a team of three interns to build a mobile app that places car parking reservations for listed driveways
- Learned iOS development in Objective-C and designed, queried, and managed a backend database

### Jane Street

New York, NY

*INSIGHT Software Engineering Program*

January 2020

- One of 25 undergraduates invited to a training track at Jane Street's offices to learn OCaml and build trading systems
- Implemented algorithms to simulate trading bonds, stocks, and ETFs in an Electronic Trading Competition

### PhET Interactive Simulations

Boulder, CO

*Software Development Intern*

May 2016-August 2018

- Published a new version of Projectile Motion in HTML5 that is suitable for various levels of technological access in schools
- The JavaScript simulation has been translated into over 40 languages and has over a million uses by students worldwide
- Mentored another intern from my high school on coding a physics simulation and joining the PhET team

## RESEARCH EXPERIENCE

### Viral Communications, MIT Media Lab

Cambridge, MA

*Undergraduate Researcher*

October 2018-May 2019

- Proposed technical ideas for a project that investigates cultural inclusion through physical devices
- Built peer-to-peer networks with InterPlanetary File System (IPFS)

## HONORS

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PyCon in Cleveland <i>Grant Recipient</i>	2019
O'Reilly Artificial Intelligence Conference in New York <i>Scholarship Recipient</i>	2019
National Center for Women in Technology (NCWIT) <i>National Honorable Mention</i>	2018
Society of Women Engineers Rocky Mtn. Division <i>Freshman Scholarship Winner</i>	2018
American Invitational Mathematics Examination (AIME) <i>Qualifier</i>	2015, 2017, 2018
N. American Computational Linguistics Olympiad (NACLO) <i>Invitational Qualifier</i>	2017
Colorado Science and Engineering Fair Computer Science <i>2nd Place Winner</i>	2016

## SKILLS

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**Languages:** Python, Java, Objective-C, JavaScript, OCaml, Unix, LaTeX, English (native), Chinese (native), French (basic)

**Activities:** MIT Figure Skating Club, MIT Asian Dance Team, MIT Literary Society