

## Programming

- Python
- Java
- LaTeX
- HTML/CSS/JS
- Bash
- MATLAB
- PHP/Hack

## Frameworks

- PyTorch
- Flask
- OpenCV
- Scikit-learn
- Node

## Applications

- Git
- Mercurial

## Operating Systems

- Ubuntu
- Windows

## Interests

- ML/AI
- Rubik's Cube
- Music
- Origami

## Education

### University of Pennsylvania — School of Engineering & Applied Science

Philadelphia, PA

Master of Science in Engineering (MSE) in Data Science

May 2020

○ Coursework: Deep Learning, Internet and Distributed Web Systems, Big Data Analytics

3.99/4.00

Bachelor of Applied Science (BAS) in Computer Science

May 2020

○ Minors: Statistics [Wharton] & Mathematics

○ Coursework: Algorithms, Database Systems, Computer Architecture, Abstract Algebra

### Stuyvesant High School

New York, NY

Advanced New York State Regents Diploma

June 2016

○ Honors: AP Scholar with Distinction

4.00/4.00

## Professional Experience

**Facebook**, Software Engineering Intern, Menlo Park, CA

May 2019 - present

○ SWE Intern on Facebook's **artificial intelligence** infrastructure (FBLearner) team

**CIS 520 (Machine Learning)**, Teaching Assistant, Philadelphia, PA

January 2019 - May 2019

○ Hold weekly recitations and office hours for teaching topics such as supervised/unsupervised learning, probabilistic graphical models and structured prediction

**Facebook**, Software Engineering Intern, Menlo Park, CA

May 2018 - August 2018

○ Provided foundation for Dynamic Ads team A/B test for new video ads format

○ Fixed product recommendation duplication that increased efficiency and eliminated recommendation timeouts

○ Created a Messenger-style internal bot that collects team member standups for accessible project transparency

**CIS 160 (Discrete Mathematics)**, Teaching Assistant, Philadelphia, PA

January 2018 - May 2019

○ Work and help students to broaden understanding of discrete mathematics through recitations and office hours

○ Write, review, and grade homework problems in topics such as combinatorics, proof techniques and graph theory

**Penn Labs**, PM, Dev Ops & Software Engineer, Philadelphia, PA

October 2016 - April 2018

○ Managed deployment and fixed Django bugs for Penn Course Review as part of semesterly data updates

○ Developed new features in Python for the API of the widely-used Penn Mobile app

## Projects & Research Experience

**Deep Learning in Machine Comprehension** | [brandonlin.com/cis700project.pdf](http://brandonlin.com/cis700project.pdf)

April 2019

○ Machine learning research paper on improving deep architectures for cloze-style reading comprehension

○ Used **PyTorch** to develop novel architectures using attention models for bidirectional LSTMs

**The Steam Engine** | [brandonlin.com/steam.pdf](http://brandonlin.com/steam.pdf)

March 2018 - May 2018

○ Machine learning research paper on applying **collaborative filtering** methods to Steam game recommendations

○ One of top 3 group research projects in UPenn's machine learning class (CIS 520 Spring 2018)

○ Employed novel matrix factorization, neighborhood, and boosting models to accurately predict hours of play time

## Awards and Achievements

○ **4-time Guinness World Record Holder** for Square-1 Average (Rubik's Cube)

○ **USA Computing Olympiad** Gold Division Qualifier

○ **YouTube** Creator (8 years) w/ over 3000 subscribers

○ **William Lowell Putnam Competition** Top 250 Finisher

## Leadership & Volunteer Experience

**Philadelphia Classic**, Competition Organizer, Philadelphia, PA

September 2017 - present

○ Write programming competition questions that encourage student thinking in various algorithmic paradigms

○ Assist in day-of operations including answering questions, selling apparel, and hosting awards ceremony

**World Cube Association**, Competition Organizer, Various Locations

July 2011 - present

○ Organized first speedcubing competition at Penn since 2009, attracting over 100 competitors worldwide

○ Volunteered at over 20 regional competitions, leading competitor experience facilitation