Brandon Lin

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

Frameworks
- PyTorch
- Flask
- OpenCV
- Scikit-learn
- Node
- MongoDB

Applications
- Git
- Mercurial
- GIMP
- Cyberlink PowerDirector

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

CIS 520 (Machine Learning), *Teaching Assistant*, Philadelphia, PA — January 2019 - present
- 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 - Aug 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 - present
- 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 — Oct 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

The Steam Engine | 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

MultiCuber | github.com/esqu1/MultiCuber — June 2017 - October 2017
- (Node.js, MongoDB) An international platform for online friendly speedcubing competitions
- Used Semantic UI to create front-end layout of competition rooms and Express for routing web traffic

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
- **American Invitational Math Examination (AIME)** Qualifier (2013-2016)

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
- Volunteered at over 20 regional competitions, leading competitor experience facilitation
- Organized first speedcubing competition at Penn since 2009, attracting over 100 competitors worldwide