Brandon Lin

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Programming
- Python
- C
- Java
- Haskell
- PHP/Hack
- HTML/CSS/JS
- Bash

Frameworks
- PyTorch
- Scikit-learn
- React/Relay
- GraphQL
- OpenCV

Applications
- Git
- Mercurial

Operating Systems
- Ubuntu
- Windows

Interests
- 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: Advanced Deep Learning, Internet and Distributed Web Systems, Computer Vision — 3.99/4.00

Bachelor of Applied Science (BAS) in Computer Science — May 2020
- Minors: Statistics [Wharton] & Mathematics
- Coursework: Randomized Algorithms, Operating 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
- Develop and design system and user interface to monitor ML feature and model lifecycles and their relationships with datasets, feature importances, and feature transformations, used by Ads Ranking and Instagram ML teams
- Created functionality for Facebook's feature compiler to reference user package files in pipeline generation
- Designed Hack and Python API for computing global feature importances across Facebook's ML ecosystem

UPenn, Teaching Assistant, Philadelphia, PA — May 2018 - present
- Teaching assistant for a variety of UPenn's classes, assisting with homework vetting, grading, teaching weekly recitations and holding office hours
- Courses TA'd: Deep Learning, Intro to Algorithms, Machine Learning, and Discrete Mathematics

Facebook, Software Engineering Intern, Menlo Park, CA — May 2018 - August 2018
- Provided foundation for Dynamic Ads team A/B test to analyze the impact of template video ads
- Created a Messenger-style internal bot that collects team member standups for accessible project transparency

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

PennOS — October 2019 - December 2019
- **Unix-like operating system** featuring a multithreaded priority scheduler, user-shell interactivity, job control, FAT-style file system, defragmentation utility, and hierarchical directory structure
- Winner of the best operating system in UPenn's undergraduate operating systems class (CIS 380 Fall 2019)

Cloze-style Machine Comprehension | 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, employing state-of-the-art attention models and LSTMs

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

Awards and Achievements

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