# Brandon Lin

*Software Developer*

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*http://github.com/esqu1*

## Programming
- *Proficient in*:
  - Python
  - Java
  - LaTeX
  - HTML/CSS
  - Bash
- *Knowledge of*:
  - JavaScript
  - SQL
  - C/C++
  - GoLang
  - MATLAB
  - Scheme

## Frameworks
- Flask
- Node
- MongoDB
- Cassandra
- Django
- Processing
- Jinja2
- Jekyll

## Applications
- Git
- GIMP
- Cyberlink PowerDirector

## Operating Systems
- Ubuntu Linux
- Windows

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

## Education

**2016–2020** **University of Pennsylvania, School of Engineering & Applied Science**
**Candidate for B.S.E. in Mathematics and Computer Science** in May 2020 – *GPA: 4.00/4.00*
- Minor: Statistics (Wharton)

**2012–2016** **Stuyvesant High School**, New York, NY
**Advanced NYS Regents Diploma** – *GPA: 4.00/4.00*

## Professional Experience

**June–Aug 2017** **Microsoft**, *Technical Account Mentee*, New York, NY
- Shadowed Technical Account Managers to gain insight into the enterprise-facing side of software development at Microsoft
- Used Microsoft Bing Speech API & Python to present on sign language translation infused into Microsoft products as part of Microsoft's hackathon

**Oct 2016–present** **Penn Labs**, *Software Engineer*
- Managed deployment and fixed Django bugs for Penn Course Review, Penn's online platform for course/professor ratings used by nearly all undergraduates
- Developed new features in Python for the Penn Mobile app's API

**Oct 2016–present** **Art of Problem Solving**, *Teaching Assistant*
- Assisting instructors by grading student solutions to various olympiad math classes
- Served as an in-class assistant for Introduction to Python, answering student questions

## Leadership & Volunteer Experience

**Oct 2016–present** **Penn Cubing**, *President*
- Expanded the speedcubing community at Penn through teaching events and meetings

**Sep 2015–June 2016** **Stuyvesant HS Computer Science Dojo**, *Leader/Sensei*
- Tutored students of Introduction to Computer Science and AP Computer Science in daily after-school sessions, nearly doubling CS involvement at Stuyvesant HS

**July 2011–present** **World Cube Association (WCA)**, *Volunteer & Competition Organizer*
- Volunteered at over 20 regional competitions, assisting in competitor experience facilitation
- Organized first speedcubing competition at Penn since 2009, attracting over 100 competitors worldwide
- Organized NYC speedcubing competition that saw a 50% increase in competitor count

## Projects

**July 2017** **Fish Bowl**
- (GoLang, Cassandra) Developed a back-end API/database for a full-fledged chat application

**June 2017** **MultiCuber**
- (Node.js, MongoDB) Used socket.io to make multiplayer chat rooms for speedcubers to compete: https://github.com/esqu1/MultiCuber

**May 2017** **WCA Rankings Sorter**
- (Flask, JavaScript) Developed an API that obtains data from the WCA, providing a better visualization of rankings: https://github.com/esqu1/wca-ranking-sorter

**June 2014** **VirtCube**
- (Processing) Implemented mechanics and a timer for a virtual Rubik's Cube: http://github.com/esqu1/ProjectAPCS

## Awards and Achievements

- Guinness World Record Holder for Square-1 Average (Rubik's Cube)
- 6-year YouTube Creator w/ over 3000 subscribers
- USA Computing Olympiad Gold Division Qualifier
- American Invitational Math Examination (AIME) Qualifier (2013-2016)
- 6-time Orchestral Musician at Lincoln Center (Violin & French Horn)