

# Brandon Lin

## Software Engineer

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🌐 <http://brandonlin.com>

<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

- 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
- 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
- May–Aug 2017 **Gray Matter, Software Engineer**
  - Developed a back-end API/database for a full-fledged chat application written in GoLang and Cassandra

## 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

- 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)