

Programming

- o Proficient in:
 - Python
 - Java
 - LaTeX
 - HTML/CSS
 - Bash
- o Knowledge of:
 - JavaScript
 - SQL
 - Go
 - C/C++
 - MATLAB
 - OCaml
 - Scheme

Frameworks

- o Flask
- o Node
- o MongoDB
- o Cassandra
- o Django
- o Processing
- o Jinja
- o Jekyll

Applications

- o Git
- o GIMP
- o Cyberlink
PowerDirector

Operating Systems

- o Ubuntu Linux
- o Windows

Interests

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

Education

University of Pennsylvania — School of Engineering & Applied Science

Philadelphia, PA

B.S. Engineering: Computer Science and Mathematics | Minor: Statistics [Wharton]

May 2020

- o Coursework: Introduction to Computer Architecture, Discrete Math, Probability, Abstract Algebra I (Graduate), Programming Languages & Techniques

4.00/4.00

Stuyvesant High School

New York, NY

Advanced New York State Regents Diploma

June 2016

- o Honors: AP Scholar with Distinction

4.00/4.00

Projects

MultiCuber | <https://github.com/esqu1/MultiCuber>

June 2017 - present

- o (Node.js, MongoDB) An international platform for online friendly speedcubing competitions
- o Used Semantic UI to create front-end layout of competition rooms and Express for routing web traffic

Fish Bowl

May 2017 - Aug 2017

- o (Go) Used Goroutines that dramatically increase server response time for a full-fledged chat application

Penn Python SDK | <https://github.com/pennlabs/penn-sdk-python>

Oct 2016 - Nov 2016

- o (Flask) Developed features showing open study spaces, the Penn calendar, and laundry machine usage
- o Incorporated new features into the Penn Mobile app, increasing user base by over 3000 students

VirtCube | <http://github.com/esqu1/VirtCube>

June 2014

- o (Processing) Implemented turning mechanics and a timer for building a virtual Rubik's Cube game
- o Worked with colleague to focus on properly rendering the graphics of the cube in three-dimensional space

Professional Experience

Microsoft, Technical Account Mentee, New York, NY

June 2017 - August 2017

- o Shadowed Technical Account Managers to learn about enterprise-facing side of Microsoft product development
- o Used Microsoft Bing Speech API to build project that demonstrates social impact of sign language translation

Penn Labs, Project Manager, Dev Ops & Software Engineer

Oct 2016 - present

- o Current Project Manager for Penn Course Review, a platform for course ratings used by nearly all undergraduates
- o Responsibilities include leading a complete rewrite of the product, working with officials to integrate PCR into other Penn products, and delegating responsibilities to software engineers & designers about infrastructure development
- o Managed deployment and fixed Django bugs for Penn Course Review as part of semesterly data updates
- o Developed new features in Python for the API of the widely-used Penn Mobile app

Art of Problem Solving, Teaching Assistant

Oct 2016 - present

- o Grading and writing personalized feedback for homework problems that boost student learning of olympiad math
- o Answering live student questions in weekly 1.5 hour sessions for various olympiad math and programming classes

Awards and Achievements

- o **4-time Guinness World Record Holder** for Square-1 Average (Rubik's Cube)
- o **USA Computing Olympiad** Gold Division Qualifier
- o **YouTube** Creator (6 years) w/ over 3000 subscribers
- o **American Invitational Math Examination (AIME)** Qualifier (2013-2016)

Leadership & Volunteer Experience

World Cube Association (WCA), Volunteer & Competition Organizer

July 2011 - present

- o Volunteered at over 20 regional competitions, leading competitor experience facilitation
- o Organized first speedcubing competition at Penn since 2009, attracting over 100 competitors worldwide
- o Organized NYC speedcubing competition that saw a 50% increase in competitor count

Stuyvesant HS Computer Science Dojo, Co-President/Sensei

Sept 2015 - June 2016

- o Tutored students of Introduction to Computer Science and AP Computer Science in daily after-school sessions
- o Promoted involvement in CS activities and nearly doubling the amount of students in CS community