

# KAREN SHEN

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## EDUCATION

**University of Pennsylvania – School of Engineering and Applied Science**

Philadelphia, PA

*Candidate for Bachelor of Science in Engineering*

May 2020

**Major:** Systems Science and Engineering    **Minors:** Computer Science, Mathematics    **GPA:** 3.84

**Honors:** Dean's List 2016-2018

**Relevant Coursework:** Data Structures & Algorithms, Network Theory, Decision Modeling, Dynamic Systems, Signal & Information Processing, Probability, Math for Computer Science, Theory of Computation, Linear Algebra, Differential Equations, Multivariable Calculus, Atoms Bits Circuits & Systems, Engineering Research & Design

## EXPERIENCE

**Microsoft, Explore Intern**

May 2018 – August 2018

- SWE and Program Manager rotation in Azure Capacity Supply Chain Provisioning division
- Built UI for consolidated data and generated insights for deployment of servers into data centers

**The Wharton School, Research Assistant**

May 2017 – August 2017

- Mined financial documents to extract public company information with goal of utilizing machine learning to predict stock performance
- Wrote scripts in Python to text mine hundreds of thousands of 10-K filings and earning calls.
- Performed sentiment analysis to measure CEO traits and other intangible firm characteristics

**Engineering Summer Academy at Penn, Residential Teaching Assistant**

June 2017 – July 2017

- Held office hours and graded assignments for over 30 students in Complex Networks, an advanced college course for high school students covering network theory, linear algebra, and MATLAB
- Organized community building social events for class and floor residents

**University of Pennsylvania, Research Assistant**

January 2017 – May 2017

- Researched optimal pathway to reduce greenhouse gas emissions in the Greater Philadelphia region
- Analyzed demographic data and classified census tracts
- Evaluated costs and benefits of changing transportation modes
- Published as SBP-BRIMS 2017 Conference paper

## PROJECTS

- Wikipedia Game (Basic Search Engine). Java.
- Implemented Paint which allows users to customize color, shapes, and line thickness. OCaml.
- Facial recognition and image compression. MATLAB.

## LEADERSHIP

**Eta Kappa Nu (IEEE-HKN Honor Society), Chapter Co-President**

2017-Present

- Spearhead academic and professional programs for electrical, systems, and computer science students.
- Started ESE@Penn Piazza page, a forum for students ask questions pertaining to ESE

**Society of Women Engineers, Activities Co-Director**

2016-Present

- Organize various professional, academic, and social events
- Initiated Female Faculty Dinner, Study Hours, and more collaborations with other clubs/organizations

**Alpha Omega Epsilon, Professionalism Chair**

2017-2018

**Women in Computer Science Residential Program, Finance/Internal Chair**

2016-2017

## SKILLS & INTERESTS

**Coding:** Java, OCaml, Python, MATLAB, Typescript, Angular

**Interests:** Piano, Flute, Bullet Journaling, Architecture

**Languages:** English, Mandarin, Spanish (Conversational)