

KAREN SHEN

shen.karen1@gmail.com

<http://karensheh.me/>

(201) 274-9138

EDUCATION

University of Pennsylvania – School of Engineering and Applied Science, Philadelphia, PA **May 2020**
Major: BSE in Systems Science and Engineering **Minors:** Computer Science, Mathematics
GPA: 3.86 **Honors:** Dean's List 2016-2018, Victor W. K. Ku Memorial Award

Relevant Coursework (current*): Machine Learning, Big Data Analytics, Software Engineering Design, Data Structures & Algorithms, Network Theory, Stochastic Processes, Decision Modeling, Dynamic Systems, Signal Processing, Algorithmic Game Theory, Probability, Mathematical Statistics, Theory of Computation, Linear Algebra, Entrepreneurship

EXPERIENCE

Microsoft, Software Engineering Intern **May 2019 – Present**

University of Pennsylvania, Electrical & Systems Engineering, Teaching Assistant **January 2019 – May 2019**

- ESE 301: Engineering Probability – guided students through core probability concepts and problem-solving
- Lead recitations, held office hours, answered Piazza questions, and graded homework/exams for about 100 students

Microsoft, Software Engineering and Program Management Intern **May 2018 – August 2018**

- Created newsfeed-style application to streamline processes in Azure Capacity, Supply Chain, and Provisioning division
- Built UI, consolidated data, and generated insights for deployment of servers into data centers using TypeScript and Angular 2

The Wharton School, Research Assistant **May 2017 – August 2017**

- Mined financial documents to extract public company information for machine learning to predict stock performance
- Wrote scripts in Python to text mine over 100,000 10-K filings and earnings calls.
- Performed sentiment analysis to measure CEO traits and other intangible firm characteristics using Receptiviti API

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, Electrical & Systems Engineering, Research Assistant **January 2017 – May 2017**

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

PROJECTS

Holdup. Created app (mobile and web) that facilitates interaction between students and professors. Android, JavaScript.

Wikipedia Game. Parsed Wikipedia link data, implemented various graph algorithms, and built basic search engine. Java.

Accelerating Adoption. Built model to predict the likelihood of an animal being adopted. Python.

LEADERSHIP

Eta Kappa Nu (IEEE-HKN Honor Society), Chapter President, Senior Advisor **2017-Present**

- Lead 7-person board that organizes academic, professional, and mentorship programs for EE and CS students
- Spearheaded tech talk series, sponsorship package, weekly newsletter, and faculty dinners
- Increased invitee to active member conversion 2x from the prior year

Society of Women Engineers, Vice President of Internal Affairs, Activities Director **2016-Present**

- Manage 13-person board through creating communication channels and organizing board bonding events

SKILLS & INTERESTS

Coding: Java, Python, MATLAB, TypeScript, JavaScript, Angular 2, OCaml, HTML/CSS, Git, MongoDB

Interests: Piano, Flute, Bullet Journaling, Architecture

Languages: Mandarin (Proficient), Spanish (Conversational)