

# KAREN SHEN

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## 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 2016-2019, Victor W. K. Ku Memorial Award

**Relevant Coursework (current\*):** Machine Learning, Big Data Analytics, Artificial Intelligence\*, Data Structures & Algorithms, Optimization\*, Stochastic Processes, Signal Processing, Algorithmic Game Theory, Mathematical Statistics

## EXPERIENCE

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

- Wrote declarative extensions in C# for the Azure IoT Connected Vehicle Platform
- Expedited and simplified the process for customers (e.g. OEMs) to add functionality to their vehicles by allowing them to specify payloads via JSON instead of having to write custom code

**University of Pennsylvania, Engineering Probability**, Teaching Assistant January 2019 – May 2019

- Guided students through core probability concepts and problem-solving
- Led 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 communication within Azure Capacity, Supply Chain, and Provisioning division using TypeScript and Angular 2
- Built UI, consolidated data, and generated insights for deployment of servers into data centers and identification of bottlenecks along the supply chain

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

- Mined 100,000+ financial documents via Python to extract public company data for ML to predict stock performance
- 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

## PROJECTS

**Holdup.** Created education feedback app (mobile and web) with capabilities to submit questions, create polls, and post ratings for courses. Written in Android and JavaScript.

**Accelerating Adoption.** Built models using ML to predict the likelihood and identify the most important factors contributing to an animal being adopted. Written in Python.

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

## LEADERSHIP

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

- Led 7-person board that organizes academic, professional, and mentorship programs for EE and CS students
- Launched tech talk series, sponsorship package, weekly newsletter, and faculty dinners
- Doubled invitee to active member conversion

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

- Managed 13-person board through creating communication channels and organizing board bonding events
- Coordinated logistics for annual SWE National Conference trip

## SKILLS & INTERESTS

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

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

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