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

Relevant Coursework (current*): Data Structures & Algorithms, Network Theory, Stochastic Processes*, Decision Modeling, Dynamic Systems, Signal Processing, Algorithmic Game Theory*, Probability, Statistics*, Theory of Computation, Linear Algebra, Entrepreneurship*

EXPERIENCE

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 with goal of utilizing machine learning to predict stock performance
- Wrote scripts in Python to text mine over 100,000 10-K filings and earning 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 and classified census tracts
- Evaluated costs and benefits of changing transportation modes
- Published as SBP-BRiMS 2017 Conference paper

PROJECTS

- **Wikipedia Game.** Parsed Wikipedia link data, implemented various graph algorithms, and built basic search engine. Java.
- **Paint.** Implemented features that allow users to customize color, shapes, and line thickness. OCaml.
- **Image Processing.** Facial recognition and image compression using Discrete Fourier Transforms and Principal Component Analysis. MATLAB.

LEADERSHIP

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

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

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**

- Ran resume workshops and maintained networking resources for the chapter

SKILLS & INTERESTS

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

Interests: Piano, Flute, Bullet Journaling, Architecture **Languages:** Mandarin (Proficient), Spanish (Conversational)