

KAREN SHEN

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<http://karensheh.me/>

(201) 274-9138

EDUCATION

University of Pennsylvania – School of Engineering and Applied Science, Philadelphia, PA

May 2020

Master of Science in Engineering, Data Science

GPA: 4.00/4.00

Bachelor of Science in Engineering, Systems Science and Engineering, *Summa Cum Laude*

GPA: 3.88/4.00

Honors: Victor W. K. Ku Memorial Award, Wolf-Hallac Award, J.P. Eckert Fellowship, 2020 Outstanding Service Award

Relevant Coursework: Machine Learning, Big Data Analytics, Computational Linguistics, Computational Neuroscience, Databases, Optimization, Stochastic Processes, Signal Processing, Applied Probability Models

EXPERIENCE

Microsoft, Incoming Software Engineer

May 2018 – Present

Software Engineering Intern

- 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

Software Engineering and Program Management Intern

- Created newsfeed-style app 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

University of Pennsylvania, Teaching Assistant

January 2019 – June 2020

- ESE 301: Engineering Probability (Spring 2019, Spring 2020)
- ENM 503: Intro to Probability and Statistics (Summer 2020)
- Led recitations, held office hours, answered Piazza questions, and graded homework/exams for about 120 students

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

PROJECTS

Predicting Graduation Outcomes. Built ML models on application data to identify the most important factors and predict graduation outcomes for Penn Engineering Masters students. Python.

OHQ. Created a web app to provide a platform to manage office hour queues, estimate wait time, and generate analytics about student understanding and staff performance. React, Javascript, GraphQL, PostgreSQL.

Disaster Demographics. Made a web app with visualizations to understand how disasters affect people in the US across various geographic regions and demographic groups with capabilities to search by weather type, date, and county. Javascript, OracleDB.

LEADERSHIP

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

2017-2020

- Led 7-person board that organizes academic, professional, and mentorship programs for EE and CS students
- Launched ESE@Penn Piazza, 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

2016-2020

- 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, JavaScript, TypeScript, SQL, Angular 2, OCaml, HTML/CSS, Git, MongoDB

Interests: Piano, Flute, Bullet Journaling, Architecture

Languages: Mandarin (Proficient), Spanish (Conversational)