

## Howard Yen

[github.com/howard-yen](https://github.com/howard-yen) | [howard-yen.github.io](https://howard-yen.github.io) | [linkedin.com/in/howard-yen/](https://linkedin.com/in/howard-yen/)

### Education

**Princeton University**, Princeton, NJ

Expected June 2023

GPA: 3.925 out of 4.0, Departmental GPA: 4.0 out of 4.0

Intended in B.S.E. Computer Science

Intended certificates in Robotics and Intelligent System and Statistics and Machine Learning

Coursework: Algorithms and Data Structures, Operating Systems, Functional Programming, Computer Vision

Awards: 2nd Place at Citadel Terminal Live Princeton vs. Penn

### Skills

**Languages:** Native in Chinese(Mandarin) and fluent in English

**Technical Skills:** Java(Advanced), Python(Advanced), C(Advanced), PostgreSQL(Advanced), C++(Proficient), React JS(Proficient), OCaml (Proficient), R (Intermediate)

### Work Experience

*Grader*, **Princeton University Computer Science Department**, Princeton, New Jersey

February 2020 - Present

- Grades the coding assignments for the class COS 226: Algorithms and Data Structures, which has over 150 students per semester and 7 coding assignments in total, each consists of hundreds of lines of code and explanations
- Analyze students' codes for their efficiency, style, and clarity, and provide feedback by teaching them good coding practices and more efficient implementations of algorithms and data structures like Binary Search, Deque, and Dijkstra's

*Machine Learning Intern*, **Map My Customers**, New York, New York

June 2020 - August 2020

- Worked full-time remotely on the product team to analyze the data collected on the web app and the mobile app since the product launched in 2014, consisting of millions of rows of data.
- Compiled metrics from the PostgreSQL database and developed PCA and SVM statistical models with 89% accuracy to predict if users will buy a subscription based on their usage during free trial period
- Analyzed geopoints recorded by the mobile app to design a model that predicts a user's home/office locations and utilized the OpenStreetMaps API to obtain their addresses

*Data Intern*, **Happy Harvest**, Shanghai, China

June 2019 - July 2019

- Worked full-time in a team of 6 to develop educational software using Python to implement Natural Language Processing (e.g. Stanford CoreNLP, spacy, and NLTK)
- Pre-process hundreds of paragraphs and integrate AWS Polly to convert texts to speech with adjustable playback speed that replaced the need to hire a voice actor to pre record all the voice lines
- Software launched in over 100 schools across China in the 2019-2020 school year

### Independent Projects

**MANGADEX-DOWNLOAD**

July 2020

- Utilized the requests, lxml, PIL, and smtplib Python libraries to automatically log users into mangadex.org, search for specific titles, download a selection of the chapters as pdf files by scraping images, and email them to the user
- Worked out mangadex.org's API by monitoring packages sent through the browser

**PDFSUMMARY**

November 2019

- Created Python script that uses computer vision and machine learning algorithms to summarize a pdf file.
- Coded with a partner in under 36 hours for HackPrinceton 2019 (code available on github).

### Leadership and Extracurriculars

*Careers Chair*, **Association for Computing Machinery**, Princeton University

September 2019 - Present

- Collaborate with companies like Ripplematch and Exponentto deliver talks on career in STEM fields and technical topics
- Practice critical thinking skills, algorithm and data structure optimization through competitions like ICPC
- Compile career resources for members to help them prepare for technical interviews