Heidi Chen

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Education

STANFORD UNIVERSITY | B.S. | CLASS OF 2020

- Major: Computer Science | GPA: 3.98
- Relevant coursework: Artificial Intelligence, Computer Vision, Deep Learning, Network Analysis, Natural Language Processing, Computer Systems, Computer Graphics, Algorithms, Large-Scale Data Mining, Computational Journalism, Social Computing, Urban Studies and Sociology

Skills

- **Programming, software development:** Python, Java, C++/C#/C, Angular, HTML/CSS
- **Machine learning, data science:** PyTorch, Keras, Scikit-learn, NumPy, Pandas, SQL, MATLAB

Work Experience

SOFTWARE ENGINEER | GOOGLE | RELEASE TEAM | 2020 – PRESENT

- Developed multi-party authorization security features and usability tooling to streamline code releases.
- Piloted release segmentation research, analyzing data over 40,000 developer servers and applications in SQL to inform Google's future Release Product strategy.
- Led migration to resolve system reliability vulnerabilities in workflow executions.
- Awarded Core Tech Impact Award for team development of workflow engine saving 5300 SWE h/w.

DATA SCIENCE INTERN | HOODLINE | SUMMER 2019

- Built data extraction and analysis pipeline to identify noteworthy changes in building zone permits for 30 cities across the U.S. Constructed template to publish findings in automated weekly articles.
- Developed ML model to rank stories' newsworthiness based on textual and numerical features.

EXPLORER INTERN | MICROSOFT AI + RESEARCH | SUMMER 2018

- Developed back-end of testing tool for Bing ranker experimentation; extracted and processed data to reveal breakdown of results for varying markets and search queries.
- Simulated A/A experiments in Python to evaluate metric validity of existing aggregation procedures.

SECTION LEADER (TA), CS 106 | STANFORD COMPUTER SCIENCE | 2017 - 2019

- Led interactive discussion sections with 13 students, operated office hours for program of over 1300+.

Projects & Publications

DETECTING GENDER BIAS IN PATIENT EVALUATIONS OF PHYSICIANS (PUBLICATION)

- Performed linear and logistic regressions on database of 40,000 patient comments paired with quantitative surveys to detect gender bias.
- Collaborated with stakeholders in Stanford School of Medicine to merge and process datasets.
- Published paper in *Women's Journal of Health;* first author.

CHARACTERIZING FLOODING CONDITIONS WITH CONVOLUTIONAL NEURAL NETS

- Adapted and developed self-attention residual architectures to detect flooding and polluted floodwaters in 10,000 ground-level images.
- Achieved 95% accuracy in flood detection compared to 60% with a pre-trained VGG16.

Leadership & Activities

STUDENT ORGANIZATIONS

- *2017 – 2019:* Head organizer of Listen to the Silence, Stanford's annual Asian-American Issues Conference. Managed student committee of 20 leads, educational workshops with 40+ community organizations and nonprofits; overall event of 500+ attendees across California.
- *2017 – 2018:* Outreach Coordinator for Stanford Society of Women Engineers' K-6 education efforts.