Alyssa Chen

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Education

Harvard University *Cambridge, MA*
A.B. CANDIDATE IN STATISTICS *May 2023*
- **GPA** 3.95 (on a 4.0 scale)
- **Selected Coursework** Machine Learning (@MIT), Data Structures and Algorithms, Biological and Artificial Intelligence, Economics of Networks, Fairness and Validity in Algorithms (graduate), Group Theory, Probability, Statistical Inference, Theoretical Linear Algebra, Real Analysis, Public Speaking Practicum
- **Publications** C. Yeo and A. Chen. "Defining and Evaluating Fair Natural Language Generation." *Proceedings of the The Fourth Widening Natural Language Processing Workshop at ACL 2020.*

The Pingry School *Basking Ridge, NJ*
VALEDICTORIAN *May 2018*
- **ACT**: 36/36. **SAT**: 1590/1600.

Experience

Facebook | Instagram for Business *Menlo Park, CA / Remote*
DATA SCIENCE INTERN *May 2021 - August 2021*
- Presented 2 data-driven reports with user segmentation analyses and product recommendations to XFN team.
- Demonstrated content quality of Instagram API-published posts using Presto, Python, and Tableau.
- Created 20+ visualizations using Matplotlib and Tableau to illustrate API usage.

Datavant | COVID-19 Research Database *San Francisco, CA / Remote*
RESEARCH SUPPORT INTERN *December 2020 - May 2021*
- Supported 215 researchers from state governments (HI, MA) and universities using a pro-bono database of over 85 billion patient-level medical records held in Snowflake and Amazon WorkSpaces.
- Wrote over 2000 lines of SQL to assist >20 research projects and to present preliminary findings to the NIA and FDA.

Secure AI Labs (SAIL) *Cambridge, MA / Remote*
DATA SCIENCE INTERN *May 2020 - August 2020*
- Developed and tested an accuracy-preserving federated version of XGBoost for SAIL's secure computing platform.
- Researched methods for developing differentially private versions of common algorithms.

Harvard University | Cognitive Computational Neuroscience Lab *Cambridge, MA*
RESEARCH ASSISTANT *June 2019 - September 2019*
- Calculated correlation in performance of 4-layer RNNs and 8 major language areas of the brain using Representational Similarity Analysis.
- Parallelized computing tasks using MATLAB, bash scripting, and cluster computing.

Extracurricular

WHRB (Harvard Radio Broadcasting) 95.3FM *Cambridge, MA*
CO-DIRECTOR (SINCE JAN 2020) AND MEMBER OF JAZZ DEPARTMENT *September 2018 - January 2020*
- Coordinated social events and managed 40-hour weekly jazz air across more than 30 active members of the department.

Harvard School of Engineering and Applied Sciences *Cambridge, MA*
TEACHING FELLOW *January 2020 - May 2020*
- Taught sections, held office hours, and graded student work for Michael Mitzenmacher's Data Structures and Algorithms.

Skills and Interests

Programming Python (including Pandas, NumPy, and Scikit-learn), SQL, MATLAB, R
Technical Data structures and algorithms, Machine learning, Statistical inference, Data visualization (Tableau)
Activities Harvard IOP STEAM Program, Smart Woman Securities
Interests Dramatic writing, flute, voice, calligraphy and hand lettering