

Jillian Tang

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Education

Stanford University

M.S. Candidate, Computer Science, Artificial Intelligence

January 2021 – June 2022

B.S. Candidate, Computer Science, Systems

September 2018 – June 2022

Relevant coursework: CS 224N, CS 231N, CS 229, CS 221, CS 236, CS 110, CS 143, STATS 216.

Work Experience

Software Engineering Intern – Facebook

August 2020 – current

- Full stack development using React.js, HackLang, GraphQL, and data pipelines to improve business communications systems.

AI Research Intern – Stanford NLP Group

June 2020 – current

- Generative probabilistic modeling for unsupervised dialogue act induction. Models in PyTorch, Pyro. Advised by Prof. Chris Manning.

Senior Section Leader – Dept. of Computer Science, Stanford University

April 2019 – August 2020

- Teach weekly sections in Python and C++ on recursive backtracking, data structures, linked lists, etc.
- Maintain React+Sass frontend for Paperless (student management/grading), develop features for CS 106B website using Liquid+Jekyll.

Data Engineering Intern – First Orion

June 2019 – August 2019

- Built unsupervised machine learning models with Python and Spark to detect anomalies in high-volume live call data.
- Tested and performed QA on low-latency models for distributed data processing. Analysis in Scala and C.

Bioinformatics Research Intern – Arkansas Children's Research Institute

June 2019 – August 2019

- Built R data processing pipeline for normalization/imputation; created R Shiny frontend dashboard. Advisor: Prof. Stephanie Byrum.

Statistics Research Intern – University of Arkansas for Medical Sciences

August 2016 – August 2018

- Developed novel statistical method for autocorrelated time-series data in N-of-1 trials; also applied to neuroeconomic measures.
- Designed and performed statistical analyses on AAMC national survey data for residency choices; co-authored manuscript.

Skills

Formal languages: Python, C++, C, Scala, Java, R, SAS.

Cloud: AWS, Google Cloud Platform.

Frameworks: PyTorch, TensorFlow, Pandas.

Big data: SQL, Spark, Hive, Presto.

Additional Experience

Alexa Prize Team Member – Stanford NLP Group

September 2020 – current

- Developing open-domain socialbot for Alexa Prize 4. Specialties: continual learning, dialogue structure, and efficient modeling.

Co-Founder and Workshop Lead – Stanford ACM Machine Learning Group

September 2019 – current

- Design and teach weekly workshops in PyTorch with application to multi-quarter machine learning projects.
- Prior projects: Mapping Income Distribution using Satellite Imagery and Image Colorization with Normalizing Flows.

Project Cycloon Co-Lead – Stanford Student Space Initiative

September 2018 – current

- Co-lead project using record-breaking high-altitude balloons to study and track hurricanes.
- Build avionics systems and write control algorithms in C, C++, and Arduino to fly balloons and receive live data in flight.

Co-President – Taiwanese Cultural Society

September 2018 – current

- Manage local business partnerships and regulation compliance for annual event (2000+ attendees), plan quarterly campus events.

Publications

1. Graw S, Tang J, Zafar MK, Byrd AK, Bolden C, Peterson EC, Byrum SD (2020). proteiNorm – A User-Friendly Tool for Normalization and Analysis of TMT and Label-Free Protein Quantification. ACS Omega.
2. Tang J, Landes RD (2020). Some t-tests for N-of-1 trials with serial correlation. PLOS ONE.
3. Jing B*, Chi EA*, Tang J* (2019). SGVAE: Sequential Graph Variational Autoencoder. arXiv preprint.
4. Ram R, Jumper H, Lensing SY, Tang J-L, Deloney LA, Kenney PJ (2018). Understanding gender differences among medical students when choosing radiology as a medical specialty. Academic Radiology.
5. AMO, RR, KA, HS, TJ-L, AK, MP, SER, SA, MFA, HSE (2017). Aggressive care at the end of life: A study of practice based factors in patients with stage IV cancer. Journal of Clinical Oncology.

*equal contribution