Franklyn Wang

Email: franklynw2000@gmail.com
LinkedIn: franklyn-wang
GitHub: github.com/franklynwang

Education

Harvard University Cambridge, MA
B.S. in Math, M.S. in Computer Science, Major GPA: 4.00/4.00 2018–

Graduate-Level Coursework: Stat 210 (Probability I), Stat 211 (Inference I), Stat 212 (Probability II), Stat 213 (Inference II), Stat 236 (Statistical Machine Learning), MIT 6.438 (Algorithms for Inference), CS 221 (Complexity Theory), CS 222 (Algorithms at the End of the Wire), CS 223 (Probability and Algorithms), CS 228 (Computational Learning Theory), CS 229R (Spectral Graph Theory), CS 229R (Essential Coding Theory), CS 229BR (Theory of Deep Learning), CS 263 (Systems Security) Math 229 (Analytic Number Theory), Math 243 (Evolutionary Dynamics), Math 278y (Spinglasses and Concentration Inequalities), MIT 6.853 (Topics in Algorithmic Game Theory), MIT 18.408 (Topics in the theory of deep learning), MIT 6.843 (Robotic Manipulation)

Publications

$*$ denotes equal contribution.

1. An Accurate and Scalable Subseasonal Forecasting Toolkit for the United States
   Soukayna Mouatadid, Paulo Orenstein, **Franklyn Wang**, Judah Cohen, Genevieve Flaspohler, Ernest Fraenkel, Lester Mackey, Miruna Oprescu
   Climate Change AI Workshop at ICML 2021 (**Spotlight**)

2. Putting the "Learning" in Learning-Augmented Algorithms for Frequency Estimation
   Elbert Du*, **Franklyn Wang***, and Michael Mitzenmacher
   ICML, 2021

3. Optimizing Reserves in School Choice: A Dynamic Programming Approach
   Franklyn Wang, Ravi Jagadeesan, and Scott Duke Kominers
   Operations Research Letters, vol. 47, no. 5, pp. 438-446, 2019.
   A version was presented at the 5th International Workshop on Matching Under Preferences (*MATCH-UP*)

Working Papers and Preprints

1. Generalization by Recognizing Confusion
   Daniel Chiu*, **Franklyn Wang***, and Scott Duke Kominers
   arXiv preprint arXiv:2006.07737. 2020

2. A New Way of Showing Respect for Improvements
   Franklyn Wang and Scott Duke Kominers
   Submitted to WINE 2021

3. Recommending with Recommendations
   Naveen Durvasula*, **Franklyn Wang***, and Scott Duke Kominers
   Submitted to AAAI 2022

4. Intrinisic Gradient Compression for Federated Learning
   Luke Melas-Kyriazi* and **Franklyn Wang***
   Submitted to AAAI 2022

Scholarships and Awards

- Goldwater Scholar 2020
- Putnam Mathematical Competition N2 (Top 20) 2019
- ICPC North America Top 2, 3 & World Finalist 2019, 2020
- USA Math Olympiad Honorable Mention (Top 20) 2016
- USA Computing Olympiad 5th place 2018
- USA Computing Olympiad Finalist 2017, 2018
- Siemens Competition 2nd place Individual ($50,000) 2017
- Davidson Fellow ($25,000) 2018
- Regeneron STS Finalist ($25,000) 2018

Teaching

- **Teaching Assistant** at Harvard University Fall 2019, Fall 2020, Fall 2021
  Probability I (Stat 210)
- **Teaching Assistant** at Harvard University Spring 2020, Spring 2021
  Algorithms and Data Structures (CS 124)
- **Lead Instructor** at Summer STEM Institute (6 weeks, 500+ students from 34 countries) Summer 2020
  Research Bootcamp
- **Assistant Instructor** at Summer STEM Institute (6 weeks, 500+ students from 34 countries) Summer 2021
  Research Bootcamp

Mentoring

- **Adam Ardeishar** 2019
  Mentored student on "Extreme Values of a Statistical Distribution Relating to the Coupon Collector Problem". Student won third place at Regneron STS ($150,000)

Experience

The D.E. Shaw Group New York City, NY (Remote)
Quantitative Analyst Intern Summer 2021

Two Sigma Investments New York City, NY (Remote)
Quantitative Researcher / Modelling Intern Summer 2020

Citadel LLC Chicago, IL
Software Engineering Intern Summer 2019

Harvard CMSA Cambridge, MA
Economic Design Fellow Summer 2017, 2018

Reviewing

Reviewer for *Management Science*