

## Education

- 2017–Present **PhD Student, Management Science and Engineering, Stanford University.**
- Advised by Prof. Peter W. Glynn
- 2014–2017 **PhD Student, Mechanical Engineering, Stanford University.**
- Advanced to candidacy in 2015
- 2017 **MS Statistics, Stanford University.**
- 2015 **MS Mechanical Engineering, Stanford University.**
- 2012 **BS Mechanical Engineering, Georgia Institute of Technology.**
- With Highest Honors
  - Minor in Biology

## Research Interests

- Broadly at the interface of data-driven operations research and machine learning
- Specializations in applied probability, sequential decision-making under uncertainty, statistical inference for stochastic processes, stochastic simulation
- Applications of interest include online experimentation, service operations, economic time series, renewable energy and sustainability

## Awards

- 2nd place, George Nicholson Student Paper Competition, 2022
- Stanford Centennial Teaching Assistant Award, 2021
- Dantzig-Lieberman Operations Research Fellowship, 2019, 2021
- National Science Foundation Graduate Research Fellowship, 2013
- Winner, 22<sup>nd</sup> Annual SAIC–Georgia Tech Student Paper Competition, 2011

## Preprints/In Submission

(Latest versions are accessible here: <https://linfanf.github.io/research/>)

1. L. Fan, P.W. Glynn, *The Fragility of Optimized Bandit Algorithms*
  - 2nd place, George Nicholson Student Paper Competition, 2022
2. L. Fan, P.W. Glynn, *Diffusion Approximations for Thompson Sampling*
3. L. Fan, P.W. Glynn, *The Typical Behavior of Bandit Algorithms*
4. L. Fan, P.W. Glynn, *Nonparametric Estimation of Markov Chain Expectations*
5. L. Fan, P.W. Glynn, M. Pelger, *Change-Point Testing for Risk Measures in Time Series*

## Journal Publications

6. P.W. Glynn, L. Fan, M.C. Fu, J. Hu, Y. Peng, *Central Limit Theorems for Estimated Functions at Estimated Points*, Operations Research, 68, 2020

## Selected Work in Progress

Approximations for Bernoulli Bandits, with W. Ba, P.W. Glynn, J.M. Harrison

Subsample-based Estimation of Markov Chain Expectations, with P.W. Glynn, M. Pelger

Gradient Estimation for Stochastic Networks, with P.W. Glynn

Efficient Parametric Estimation of Markov Chain Expectations, with P.W. Glynn

---

## Earlier Journal Publications

7. J. Yen, D.W. Murphy, L. Fan, D.R. Webster, *Sensory-Motor Systems of Copepods involved in their Escape from Suction Feeding*, Integrative and Comparative Biology, 55, 2015
8. J. Wang, T.B. Kouznetsova, Z.S. Kean, L. Fan, B.D. Mar, T.J. Martinez, S.L. Craig, *A Remote Stereochemical Lever Arm Effect in Polymer Mechanochemistry*, Journal of the American Chemical Society, 136, 2014
9. L. Rosenfeld, L. Fan (co-first author), Y. Chen, S.K.Y. Tang, *Break-Up of Droplets in a Concentrated Emulsion Flowing Through a Narrow Constriction*, Soft Matter, 10, 2014
10. L. Fan, D. Potter, T. Sulchek, *Constant Tip-Surface Distance with Atomic Force Microscopy via Quality Factor Feedback*, Review of Scientific Instruments, 83, 2012

---

## Conference Presentations

1. 2022 INFORMS Annual Meeting, *The Fragility of Optimized Bandit Algorithms*
2. 2020 INFORMS Annual Meeting, *Nonparametric Estimation of Markov Chain Expectations*
3. 2018 NBER-NSF Time Series Conference, *Change-Point Testing and Estimation for Risk Measures in Time Series*

---

## Teaching Experience

*Stochastic Modeling*, MS&E 221

- Core course for MS students; taught by Prof. Peter Glynn
- TA in Winter 2019, Spring 2021; Head TA in Spring 2022

*Fundamentals of Data Science*, MS&E 226

- Core course for MS students; taught by Prof. Ramesh Johari
- Co-Head TA in Fall 2018, Fall 2019, Fall 2020

*Stochastic Calculus and Control*, MS&E 322

- PhD-level course; taught by Prof. Peter Glynn
- TA in Spring 2019, Winter 2023

*Introduction to Stochastic Modeling*, MS&E 121

- Core course for undergraduate students; taught by Prof. Sam Chiu
- TA in Spring 2017

*Introduction to Matrix Methods*, CME/EE 103

- Undergraduate-level course; taught by Prof. Stephen Boyd
- TA in Fall 2016

---

## Work Experience

- Summer 2010, 2011   **Engineering Intern**, *National Renewable Energy Laboratory*, Golden, CO.
- Developed simulation tools for performance evaluation of large-scale wind farms
  - Science Undergraduate Laboratory Internship Program, US Department of Energy

---

## Professional Service

Reviewer for *Operations Research*, *Management Science*, *Annals of Applied Probability*