

EDUCATION

- **Harvard University** Cambridge, MA
PhD Statistics (expected) August 2022 – Present
 - **Advisor:** Prof. Susan Murphy
- **Rensselaer Polytechnic Institute** Troy, NY
BS Mathematics, BS Computer Science; GPA: 4.00 August 2009 – May 2013

INTERESTS

- Implementation, theory and analysis of Reinforcement Learning algorithms
- Statistical computing

WORK EXPERIENCE

- **Medallion (healthcare startup)** San Francisco, CA/Remote
Senior Software Engineer Jan 2022 - Aug 2022
 - Led the building of a modern data analysis environment alongside general full-stack software engineering before beginning graduate school.
- **Wanderu (transportation aggregation and routing startup)** Boston, MA/Remote
Senior Data Engineer July 2019 - Jan 2022
 - **Primary Role:** Creating reliable data systems via traditional software engineering practices applied to data: testing, monitoring, sharing logic, documentation, etc.
 - **Highlights:** Built a system to automate daily intake and reconciliation of international station and route data from dozens of sources. Created a framework for unit testing important SQL logic in real databases and applied it as part of an audit of our multi-currency transaction processing. Modernized data transformation processes with dbt, reducing barriers to get people involved in data analysis and engineering.
- **Dark Sky (popular weather forecasting app/API, acquired by Apple)** Cambridge, MA/Remote
Backend Engineer July 2018 – Feb 2019
 - Highlights include building a new accounting system from scratch to support a new forecasting API and building custom feature flag functionality for binary toggling of features without code deploys.
- **Jana (MIT Media Lab spinoff)** Boston, MA/Remote
Engineering Intern → *Software Engineer (2013)* → *Senior Software Engineer (2016)* June 2013 – June 2018
 - **Analytics Pipeline Owner:** Became the primary engineer for all aspects of an analytics system centered around an Apache Kafka cluster that processed over 1 billion records a day for several years.
 - **The Rest of Five Years in One Bullet:** Full-stack web and Android development for the mCent application with over 1 million daily active users in the developing world, fraud modeling, experiment infrastructure and analysis, system administration, data analysis, etc.

RESEARCH EXPERIENCE

- **Department of Industrial and Systems Engineering, Rensselaer** Troy, NY
Funded Research Fall 2012 – Spring 2013
 - Worked with Prof. Victor Chan on a problem in operations research involving the representation of queue simulations as linear programs. Second author on a paper, *Sensitivity analysis of linear programming formulations for G/G/M queue*, presented at the 2013 Winter Simulation Conference.
- **Department of Industrial and Systems Engineering, Rensselaer** Troy, NY
Senior Thesis Fall 2011
 - Worked with Prof. Tom Willemain on a problem involving detecting relationships between recurring events using their sequences of occurrence times. Implementation in R. Thesis: *Identifying Causally Related Temporal Sequences*.

TEACHING EXPERIENCE

- **Harvard University** Cambridge, MA
Teaching Fellow Fall 2023
 - STAT 110: Introduction to Probability
- **Veritas AI** Remote
Mentor May 2022 - Present
 - Mentor for three separate high school students on 1-1 machine learning projects, leading to publication and/or software applications.
 - Lead mentor for a two-week long course teaching modern machine learning methods to high school students, with lectures, small-group coding sessions, and final group projects and presentations.
- **Miscellaneous Tutoring** Revelstoke, BC/Remote
Tutor Fall 2021
 - Tutored a Stanford undergraduate for Math 51, an introductory Linear Algebra/Multivariable Calculus course (paid).
 - Helped a local community college student in a Python programming course (free).
- **Rensselaer Polytechnic Institute** Troy, NY
Math Mentor Fall 2012
 - Led a weekly session and office hours with seventeen first-year Calculus students, serving a role similar to a graduate teaching assistant.
- **Tutor Time** Troy, NY
Tutor Fall 2009 - Spring 2010
 - Helped local elementary through middle school children learn math and reading.

COMPUTING TOOLS

- **Regularly-Used:** Python, SQL, UNIX, AWS — **Have used:** A lot of things