# David Mingfei Liu

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#### Education

• Princeton University (2018)

B.S.E in Computer Science with Certificate in Statistics and Machine Learning GPA:  $3.73 - summa\ cum\ laude$ 

Coursework includes: Probability and Stochastic Systems, Machine Learning and AI, Neural Networks, Analysis of Big Data, Social Networks, Fairness in Machine Learning, Applied Social Statistics, Applications in Econometrics.

• Thomas Jefferson High School for Science and Technology (2014)

#### **Preprints**

• Liu, David, and Matthew Salganik. 2019. "Successes and Struggles with Computational Reproducibility: Lessons from the Fragile Families Challenge." SocArXiv. March 15. doi:10.31235/osf.io/g3pdb.

To appear in a special issue of Socius about the Fragile Families Challenge

### **Projects**

• Analyzing language trends in post-secondary FERPA notices Advisor: Arvind Narayanan Feb 2017 - Jun 2017

Scraped education policy documents and used SVM classification to isolate FERPA notices. Data used to survey the state of education-policy compliance. https://github.com/dliu18/papers/blob/master/legal\_nlp.pdf

• Discovering Princeton's History: A textual analysis of collegiate newspaper headlines

Advisor: Brian Kernighan Sep 2016 - Jan 2017

Created an interactive, public n-gram viewer based on the electronic archives of Princeton's student-run campus newspaper.

https://github.com/dliu18/papers/blob/master/digital\_humanities.pdf

## Industry Experience

- Bloomberg LP Software Engineer July 2018 Present Implementing scalable, reliable C++ services on a derivatives market data team with a focus on message queueing, automated testing, and interface design.
- The New York Times Software Intern

  Architected backend supporting the renovation of the "My Account" page of the New York Times, increasing site usability. Renovated site launched in October 2017. Initiated side project with the NYT Data Science team, improving visualization of readership data from embedded static files to native, interactive Google Charts.
- HookLogic Inc. Data Science Intern Summer 2016
  Reduced data analysis overhead time for team by initiating Hive queries on AWS
  clusters to analyze performance of machine learning models.

### Awards and Honors

• Sigma Xi Nomination: Princeton chapter

Jun 2018

- Daily Princetonian Award for Excellence in Sports Writing: Annual award given to staff member demonstrating superior writing.

  Jun 2016
- Residential College Advisor Scholarship: One of 30 campus advisers chosen from class on the basis of leadership and character. Responsibilities include building community among 20 freshmen for one year. Monetary compensation of \$20k, covering room and board.

  Jun 2016

#### Co-curricular Activities

- Peer Academic Advisor, Princeton University: Provide academic assistance to freshmen and sophomores with choosing courses, majors and independent projects at Princeton University
   2016 2017
- Undergraduate Lab Teaching Assistant, Princeton University: Provide debugging and conceptual assistance on programming assignments for introductory Computer Science courses; assist the head Lab TA in the smooth functioning of the Lab TA program
   2015 2016

**Talks** 

- RabbitMQ Summit: Co-delivered the Bloomberg keynote on scaling distributed message queueing. Recording is at rabbitmqsummit.com. Nov 2019
- Fragile Families Challenge Scientific Workshop: Led a breakout session on using Docker to improve the reproducibility of crowdsourced machine learning prediction models.
   Nov 2017