David Mingfei Liu

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Education

- **Princeton University**
  B.S.E in Computer Science with Certificate in Statistics and Machine Learning
  summa cum laude (2018)
  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 Compu-
  tational 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 from the web and used SVM classification to
  isolate FERPA notices. Data used to survey the current state of education policy
  compliance.
  `https://github.com/dliu18/papers/blob/master/legal_nlp.pdf`

- **Sentiment analysis of archived 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***   **Summer 2017**
  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 Nificationt:** 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:** Will deliver the keynote address on Bloomberg's use of message queueing. `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**