# **Stephen M. Lee**

https://stephenlee.info

615.944.4486

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# **Education**

### **University of Chicago:** *Chicago, IL*

* M.B.A Class in Competitive Strategy **Winter 2019**

### **University of Memphis:** *Memphis, TN*

* M.S. Computer Science **Winter 2019**
* M.A. Economics **2018**
* B.S. Physics **2013**

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# **Skills**

### **Computer Programming**

* *Data Science*  R (tidyverse), Python (pandas, numpy, and keras), MATLAB.
* *Web Development*  Django REST Framework, NodeJS, Angular 8 (Typescript), Bootstrap (CSS / HTML).
* *Machine Learning* Neural networks, Decision trees, Clustering, Recommendation systems.
* *Econometrics* Causal inference, Discrete choice, Fixed and random effects, Probit/logit, ARMA, VAR.
* *NLP*  LDA, LSTM neural networks with GloVe embeddings, Multinomial inverse regression.
* *Other Tools* SQL, AWS, OSX, Windows 10, Linux (Debian), Bash scripts, Docker.

### **Teamwork**

* *Project Management* Agile; Git version control; Test driven development; Experience with distributed teams.
* *Public Speaking* Conference and workshop presentations, with and without PowerPoint.

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# **Employment**

**Federal Reserve Bank of Chicago:** *Research, Finance Department* **2019 – Current**

* I co-author the Finance memo used to brief the bank President before each FOMC meeting.
* Research includes a study of information in Board of Governors speeches using natural language processing (NLP), interest rate pricing of bank loans using confidential Y14 bank reporting data, and the effects of the announced corporate credit facilities in response to COVID-19 (PMCCF and SMCCF).

**University of Memphis:** Research Assistant, Economics and CS Departments **2016 – 2019**

**Fanatics Apparel**: *Planner* **2015 – 2016**

**Professional Golf** **2013 – 2015**

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# **Select Projects**

**BookLocal Travel Solutions:** Passion Project **2017 – Current**

* Authored the first standard for renting assets on a blockchain (ERC-809), and wrote smart contracts (in Solidity) to implement a hotel distribution system on the Ethereum blockchain.
* Pivoted to focus on access control and helped build a web based system that controls Z-wave connected smart devices (Angular, Go, MySQL, Docker).

**xyzNews:** Master’s Thesis **2019**

* I trained a LSTM neural network to identify the source of a news article based on the first 250 words of an article. With all three choices, my best model yields an F1 score of greater than 0.9.
* Built a web interface to use it (Python with keras and flask).
* An early version of this work won 2nd place in the Graduate Student Research Symposium.