

Stephen M. Lee

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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
- M.A. Economics
- B.S. Physics

Winter 2019
2018
2013

Skills

Computer Programming

- *Data Science*..... R (tidyverse), Python (pandas, numpy, and keras), MATLAB.
- *Web Development*..... Django REST Framework (Python), 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.

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

Select Projects

BookLocal Travel Solutions: *Co-Founder*

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 property management system that controls and schedules codes for Z-wave connected smart locks (Angular, Go, MySQL).

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.

Money Stuff Newsletter to Audio

2019

- I wrote a program that scrapes my email for my favorite finance newsletter (Money Stuff by Matt Levine), converts it to an MP3 using the AWS Polly service, and saves it in a publicly shared Dropbox folder for others to enjoy.