# LI LIU

5608 S. Harper Ave | Chicago, IL 60637 | (812) 287-3072 | <u>lliu95877@gmail.com</u> <u>LinkedIn</u> | <u>Portfolio</u> | <u>GitHub</u>

#### **EDUCATION**

### THE UNIVERSITY OF CHICAGO

Chicago, IL

Master of Arts in Computational Social Science (Track: Economics), GPA: 3.9

(Expected) Jun 2020

- Awards: Social Science Division Academic Scholarship (\$60k)
- Coursework: Computational Modeling and Research, Machine Learning, Quantitative Marketing, Causal Inference, Computational Linguistics, Behavioral Economics, Survey Research Methodology, Python Programming, Spatial Data Science

#### INDIANA UNIVERSITY

Bloomington, IN

#### Bachelor of Science in Applied Mathematics & Bachelor of Arts in Economics, GPA: 3.6

May 2018

- Awards: Undergraduate Research Grant (\$1k), Dean's List, Omicron Delta Epsilon (Economics Honor Society)
- Coursework: Applied Econometrics, Financial Econometrics, Numerical Analysis, Probability and Statistics, Network Analysis

### COMPUTATIONAL EXPERIENCE

#### THE UNIVERSITY OF CHICAGO

Chicago, IL

## **Teaching Assistant - Computational Social Science M.A. Program**

Jan - Mar 2020

- Mentored students during office hours and graded weekly assignments in Python and R for the Computational Modeling course
- Led 4 lab sessions independently on reviewing the statistical concepts, answering questions, and implementing the models in R
- Initiated and maintained a password-protected Shiny web app in R for 40 students to check grades and feedback easily

#### Student Researcher - Open Source Economics Laboratory Boot Camp

Jul - Aug 2019

- Collaborated with other 25 graduate students from top universities to code daily assignments in computational economics
- Learned computational and modeling skills in Python for conducting dynamic economic research and policy analysis

#### **Data Analytics Assistant - Harris School of Public Policy**

Feb - Jun 2019

- Introduced the linear sum optimization algorithm to improve the matching results of the Alumni Connect program by 10%
- Researched on modeling graduates' career outcomes and cleaned students' surveys by extracting and transforming features
- Collected information on 150+ potential future donors for the Harris school by scraping and documenting web data in Python

#### ANALYTICAL PROJECTS

### What Makes Amazon Reviews Trustworthy?

Nov 2019- Apr 2020

- Generated 15 characteristics variables for one keyboard product's reviews on Amazon using text mining and topic models
- Developed a variable selection method by combining results from random forest, linear regression, and Lasso regression
- Discussed why certain characteristics of the Amazon reviews are important of forming the review trustworthiness for customers

### **Preference-Based Recommendation Model for Groups**

Ian - Mar 2020

- Hosted weekly meetings with 2 Booth MBA students to build the utility theory, write Python scripts, and draft summary reports
- Estimated the group's expected satisfaction of dining at certain restaurant by random forest from Yelp's data in Python
- Purposed a recommendation model to aggregate group members' preferences and rank the matched restaurants for users

#### Analyzing Developers' Online Behavior on Stack Overflow

Apr - Jun 2019

- Collaborated with 3 classmates to manage the project on GitHub, form the hypothesis, and process the raw data (25 GB)
- Performed exploratory data analysis in R on activity counts, developers' locations, most popular languages, and tags network
- Applied Hadoop to find that developers' sentiments in answers were negatively correlated with languages' popularity

### LEADERSHIP

- **Team Leader, Harris School of Public Policy Hackathon** (Nov 2019 Jan 2020): Directed a team of 5 to design and develop a social media platform for students to share their class projects concisely with peers and potential employers; presented the project for 100+ participants and Harris staff; won the best idea award among 13 teams at the hackathon
- Social Activities Chair, Social Sciences Graduate Student Activities Committee (Oct 2019 present): Managed a \$7k budget to organize and lead social events for 80 students in the program; collaborated with chairs from other programs to host events
- Vice President, Chinese Calligraphy Club at Indiana University (Dec 2015 Dec 2016): Launched a new club website and edited monthly newsletters to promote the events; increased the number of weekly workshop participants by 30%; raised 2k+ revenue by selling the handwritten Spring Festival Couplets to IU students in one month

### TECHNICAL SKILLS

- Programming Languages: 2-year Python & R & SQL experience
- Software & Tools: Proficient in Microsoft Excel, Git, Tableau, Stata