EDUCATION

University of Illinois at Urbana-Champaign (UIUC)   Champaign, IL
M.Sc. in Computer Science, Specialization in Data Science   Expected May 2022
B.Sc. in Econometrics and Statistics, Minor in Computer Science   Expected May 2021
- Dean's List, Spring 2020 (3.95/4.00)   Major GPA: 3.60/4.00
- Certificate in Data Science
- **Select Coursework** – Discrete Structures, Data Structures, Statistical Learning, Applied Machine Learning, Data Analysis (Regression, Multivariate, Bayesian), Data Visualization, Time Series

RESEARCH EXPERIENCE

AbbVie,   Mar. 2020 – Present
Cheminformatics Research Engineer   *Champaign, IL*
- Built web application for *in silico* drug discovery with { Keras and React, deployed using AWS server }
- Researched and implemented deep generative modeling techniques for molecular design { RL, VAE-GAN }
- Developed a novel application of { NMT-GAN } for deep learning prediction of optimal reaction conditions
- R. Gupta, D. Zhang, A. Jayaraman. *Optimizing de novo molecular design for proprietary chemical space*. (draft)

UIUC Department of Economics,   Jan. 2019 – Present
Econometric Policy Researcher   *Champaign, IL*
- Investigated the link between personality and opioid use with ML { TensorFlow, caret, glmnet }
- Developed and validated predictive risk models with open source data, achieving 96% acc. { UCI, Kaggle, CDC }
- Assessed predictive models within a decision framework to implicate effective health care policy strategies

Northwestern Medicine,   May 2017 – Aug. 2017
Research Intern   *Chicago, IL*
- Investigated whether the size of the { *C9orf72* expansion mutation } correlates with ALS disease severity
- Formulated a procedure that overcame the difficulties of sequencing the highly repetitive, GC-rich expansion

LEADERSHIP EXPERIENCE

UIUC Department of Economics,   Aug. 2019 - Present
Head Teaching Assistant   *Champaign, IL*
- Augmented course curriculum to emphasize student understanding of industry standards for data analysis
- Developed a protocol to guide a < > of 7 TAs, ensuring consistency and robustness in provided feedback
- Held weekly office hours for 15+ students on ML algorithms and statistical methods for model validation
- Conducted bi-weekly reviews of 90 student papers, providing guidance on research methodology and analysis

UIUC Department of Economics,   Aug. 2019 - Present
Econometrics Tutor   *Champaign, IL*
- Selected as 1 of 8 tutors on the basis of professor recommendation and departmental academic achievement
- Served as a specialized tutor for advanced coursework in applied econometrics (ML, Forecasting, Policy Eval.)

SKILLS AND INTERESTS

- **Languages**   Proficient in R • Java   –   Intermediate in Python • JavaScript • HTML • CSS
- **Libraries**   Keras/TensorFlow • D3 • Bootstrap • React • Tidyverse • SciPy/NumPy
- **Tools**   Git • Tableau • Excel • Stata • R Markdown • Jupyter • LaTeX
- **Interests**   Human Development • Precision Medicine • Typesetting • Food culture • Storytelling