Benjamin Draves, Ph.D.

I'm a Senior Applied Scientist at Uber in NYC. I build recommendation systems and ML targeting systems to grow Uber's consumer and earner businesses. I hold a Ph.D. in Statistics from Boston University where I studied graph embedding methods.

Experience

Senior Applied Scientist – Uber

New York City, NY

- Developed recommendation systems to recommend restaurants, offers, and grocery and retail stores to grow Uber's delivery business.
- Created an ML targeting system to re-engage churned earners with incentives, driving efficient supply growth in all-markets, globally.
- Organized weekly Learning and Development series for 150-person DS org.

Recommendation Systems

- Built recommendation models...
 - o for restaurants/offers utilizing learn to rank XGBoost models
 - o for grocery/retail stores using relational collaborative filtering with **PySpark**
- Built models to determine...
 - user's most likely next delivery location using XGBoost
 - o user's cuisine preferences using graph embedding with PySpark

Data Scientist Intern – HP

Remote – Boston, MA

- Designed and implemented an experimentation platform utilizing causal inference methods to assess changes in global pricing strategies.
- Deployed a gradient-boosted regression model to a production pricing tool.

Lead Statistical Consultant - Boston University

Boston, MA

- Oversaw team of 14 Masters students working in BU's consulting center.
- Provided consulting services to 35 clients in industry and academia.

Education

Ph.D., Master of Arts: Statistics

Boston University - Boston, MA

- Dissertation: Joint Spectral Embeddings of Random Dot Product Graphs •
- Research Areas: Machine Learning, Matrix Analysis, Multivariate Stat.
- GPA: 3.98. Qualifying exams: Theoretical Probability, Applied Statistics •

Bachelor of Science: Mathematics

Lafayette College - Easton, PA

GPA: 3.90. Graduated summa cum laude with honors and thesis.

ML Targeting Systems

- Built targeting models to predict..
 - o an earner's responsiveness to an incentive using CausalML meta-learners (S, X, T, R)
 - a rider's preferred mobility 0 multi-label product using classification models in Keras
- Built a budget pacing system to allocate incentive spend across time/geos using PID controllers and convex optimization

Contact

Phone (330) 428-5025

E-mail

benjamin.draves@gmail.com

Website

2021–Present

dravesb.github.io

Languages



Leadership & Awards

- Committee Chair BU Data Science Mentoring Circles
- **BU Excellence in Student Teaching Award**
- BU Student Chapter of the ASA - Board Member
- Barge Oratorical Prize most compelling thesis defense
- Mitman Math Award most outstanding math major

Hobbies & Interests



2017-2022

2014 - 2017

2019-2020

2021