# Seth Saperstein

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## **EDUCATION**

## UNIVERSITY OF MICHIGAN (Expected Graduation Dec 2019), Ann Arbor, MI

B.S., Majors in Data Science, Economics, and Mathematics of Finance and Risk Management

- **GPA:** 3.5
- Relevant Course: Machine Learning, Applied Regression Analysis, Web Systems, Data Structures and Algorithms, Math of Finance, Econometrics, Probability Theory, Discrete State Stochastic Processes
- Awards And Honors: University Honors ('18, '17, '16)
- Extracurricular Activity: Michigan Data Science Team VP of Communications, Chi Phi Fraternity

### **EXPERIENCE**

# UNIVERSITY OF MICHIGAN, Ann Arbor, MI

Data Science Fellow, May 2018 - Aug 2018

- Created a model, based on item-response theory and computer adaptive testing, that determines user competency for an online learning platform purposed for practice testing.
- Conducted an effectiveness study, based on observational data, for an online learning platform that resulted in 2 new features added to the deployment pipeline.
- Created a model to predict exam grades based on features engineered from an online learning platform purposed for practice testing, resulting in a 11% increase in accuracy when compared to using GPA.

# X-MODE SOCIAL, Reston, VA

Data Science Intern, Jun 2018 - Aug 2018

- Automated data cleaning and formatting processes for 1.5 billion geospatial location data points daily by leveraging Python, AWS, SQL, and Hadoop, which led to a 20 percent reduction in pipeline latency.
- Implemented a series of machine learning methods on location data leading to a 8.4 percent increase in the accuracy of a visitation at a point-of-interest.
- Created and back-tested portfolio strategies that use GPS location data to more accurately predict quarterly revenue reports.

# **NORTH AMERICAN BANCARD, Troy, MI**

Marketing Analyst Intern, Jun 2016 - Aug 2016

• Publication of over 100 fin-tech and small business blogs, aiding in the 40 percent increase in content views and focused towards increasing SEO performance.

### CERTIFICATIONS

• AWS Certified Solutions Architect – Associate

## **PROJECTS**

Location Collection SDK & Data Pipeline

• Implemented a location collection SDK for iOS that leverages serverless AWS architecture to ingest, process, store, and query mass amounts of stream-like data, visualized in an admin dashboard web-application.

Map Reduce Engine (Web Systems Course)

• Implemented a Hadoop-like Map Reduce facility, with master and worker nodes for map-reduce operations over large data sets, with a distributed file system, and fault tolerance to address data node failures.

## **LEADERSHIP**

Michigan Data Science Team – VP of Communications

• Manage internal and external communications for 500+ members. Hosted the first ever MDataHack, consisting of 100+ people and 25+ teams. Aided in the creation of tutorials as well as organized project communication.

## ADDITIONAL SKILLS

- Advanced: AWS, SQL, C++, Python, ETL Pipelining, Machine Learning
- Intermediate: Swift, R, ReactJS, JavaScript, HTML, CSS