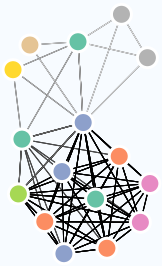
JOSHUA GOLDBERG

Data scientist proficient in statistics, machine learning, and software engineering. Proficient in python, R, SQL, and C++ using functional programming and object-oriented design. Examples of my work include machine learning models to optimize sales and marketing programs with an estimated impact of $1 million net revenue annually at a financial institution; models to detect risky behavior across millions of third-party sellers on amazon.com[1], and forecasting models to predict demand of 500,000+ products on Amazon's Marketplace. Outside of work, I enjoy distance running, reading, and developing/implementing algorithms[2] in C++.



View this CV online with links at https://goldbergdata.github.io/cv

INDUSTRY EXPERIENCE

Current | 2020

Data Scientist

Amazon — Seattle, WA

- Conceptualize and implement machine learning models for forecasting and supply-chain use-cases; own and maintain python production code in AWS / Amazon SageMaker that predicts customer demand of 500,000+ Amazon products worldwide
- Built, enhanced, and maintained natural-language machine learning models to detect fraud and abuse from third-party sellers' communication with customers on Amazon's marketplace; models detected and prevented thousands of fraud and abuse cases on a quarterly basis.
- Create software tools to monitor machine learning models in production

2020 | 2017

AVP, Lead Data Scientist

Nuveen — Chicago, IL

- Pioneered end-to-end (execution and experimental design) deep learning time series model for client onboarding; estimated impact of the model was $1 million net revenue annually that maximized client journey (improvement in client retention, client growth, etc.)
- Built recommendation engine for 150,000 clients in 50+ products
- Presented model/analysis to executive management; results included model adoption by 100+ sales people and a significant increase sales for clients treated by the model
- Conceptualized and created simulation engine that isolated, detected and measured the ROI impact of company sales events

2017 | 2014

Senior Equity Research Associate, Financial Services

Raymond James Financial, Inc. — Chicago, IL

- Built company and industry models using finance and statistical techniques, including regression and discounted cash flows (DCF)

CONTACT

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Twitter
Github
https://joshuagoldberg.name
LinkedIn

LANGUAGE SKILLS

- Python
- R
- SQL
- C++
- Bash
- HTML/CSS
- Javascript

EDUCATION

2021

Computer Science Coursework
Edmonds College — Seattle, WA

- C/C++ Data structures & algorithms, object-oriented design and programming

2020

M.S. in Analytics
University of Chicago — Chicago, IL

- Coursework in statistics, linear algebra, machine learning, and deep learning

2013

B.S. in Accounting and Finance
University of South Florida — Tampa, FL

SELECTED CODE REPOSITORIES

2021

Machine learning decision tree and data frame implementation in C++[3]
Github — Seattle, WA

- Authored with John Nguyen

2020

Generative adversarial network used to generate musical samples[4]
University of Chicago — Chicago, IL

- Capstone project and paper[5] authored with Terry Wang and Rima Mittal. Supervised by Yuri Balasanov[6]

In my free time, I enjoy working with friends, peers, and colleagues on algorithm designs/implementations. Recently, we built data frame and decision tree classes in C++.

TEACHING EXPERIENCE

Current | 2020

Data Understanding via SQL, Databases, and R
University of Chicago — Remote

- TA and lecture
- Topics include introduction to databases, mySQL, and R

Current | 2020

MastersTrack Statistics for Machine Learning
University of Chicago — Coursera

- TA and lecture
- Topics include simple and multiple regression, logistic regression, hypothesis testing, variable transformations

I am passionate about teaching and helping others. It brings me joy and satisfication to teach others new skills.

Current | 2020

MastersTrack Machine Learning

University of Chicago

Coursera

- TA
- Topics include a survey of machine learning algorithms: kNN, support vector machine, decision tree, random forest, boosted trees, and clustering algorithms