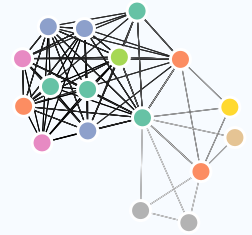


# JOSHUA GOLDBERG

Data scientist proficient in statistics, machine learning, and software engineering. Comfortable with R, python, 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; I have also built/maintained models to detect risky behavior across millions of third-party sellers on amazon.com<sup>1</sup>. Outside of work, I enjoy distance running, reading, and developing/implementing algorithms<sup>2</sup> in C++.



## INDUSTRY EXPERIENCE

Current  
|  
2020



### Data Scientist

Amazon

📍 Seattle, WA

- Build machine learning models to detect Amazon seller fraud activity
- Manage ETL pipelines to enable automated work-flows
- Maintain model efficacy through retraining and error analysis
- 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)



## EDUCATION

Current  
|  
2021



### Graduate Certificate in Software Design & Development

University of Washington Bothell

📍 Bothell, WA

- C++ data structure & algorithms, object-oriented design and programming, systems programming, and software planning and development

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

## CONTACT



[josh.goldberg1@outlook.com](mailto:josh.goldberg1@outlook.com)

🐦 [Twitter](#)

📄 [Github](#)

🔗 <https://joshuagoldberg.name>

in [LinkedIn](#)

## LANGUAGE SKILLS

R

SQL

C++

Python

Bash

HTML/CSS

Javascript

*Last updated on 2021-10-08.*

- 2021 ● **Computer Science Coursework**  
Edmonds College 📍 Seattle, WA  
 • C/C++ Data structures & algorithms, object-oriented design and programming
- 2020 | 2018 ● **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++<sup>3</sup>**  
Github 📍 Seattle, WA  
 • Authored with John Nguyen
- 2020 ● **Generative adversarial network used to generate musical samples<sup>4</sup>**  
University of Chicago 📍 Chicago, IL  
 • Capstone project and paper<sup>5</sup> authored with Terry Wang and Rima Mittal. Supervised by Yuri Balasanov<sup>6</sup>

## 👤 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
- 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

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++.

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