

# Jonathan Withers

Data Science | Data Analytics | Social Science

Boston, MA. Ph.D. with 5+ years of work experience in data science and analytics. I excel at numbers-based analysis and at communicating complex ideas in different ways.

linkedin.com/in/jon-withers • (412) 874-7868 • jon.s.withers@gmail.com • github.com/jonwithers • jonwithers.github.io

## Experience

### iRobot Corporation

2018-Present

#### Senior Data Scientist

2022-2024

Developed and improved health predictions for replaceable robot parts. Trained and deployed models for predicting and intervening on robot abandonment. Designed and implemented core algorithm for predicting cleanliness of rooms.

#### Data Scientist

2019-2022

Created an experimental design framework for robot software release to production. Provided responsive readouts that informed decisions for 5 multi-stage full-fleet software updates to millions of robots.

#### Data Analyst

2018-2019

Worked closely with product managers to create dashboards and reports on digital features. Developed KPIs and standard metrics for new robot and app features.

#### Data Science Intern

2018

Conducted OTA A/B testing for robot software. Wrote triggers to identify users to receive coaching through in-app messaging.

### Salem State University

#### Visiting Lecturer

Taught classes on world music to non-majors, introducing broad global perspectives through unfamiliar music.

### Brown University

#### Visiting Lecturer

Taught a topics-based course on music in the Middle East. Discussed nationalism, religious discourse, and concepts of modernity.

## Education

2016

### Harvard University

Ph.D., Ethnomusicology

2010

### University of Pittsburgh

B.S., Physics

B.Phil., Music

## Relevant Skills

Python

Pandas, NumPy, Matplotlib, Plotly, scikit-learn, StatsModels, Shiny, BeautifulSoup, PySpark

Other Software

SQL, R, LaTeX, AWS

## Awards

R&D Team Excellence Award

2023

## Personal Projects

### Turkish Song Timeline

Scraped Turkish song lyrics and used topic modeling techniques to cluster them into genres, demonstrating correspondences between lyrics and important events in Turkish political history.

### Plagiarism Detector

Built a pipeline that scraped articles in English and Mandarin and translated the Mandarin to English. Trained a classifier on this corpus to predict whether a text had originally been in Mandarin, which would help teachers in tricky plagiarism situations.

2016

## Interests

Music, Language Learning, Cooking, Camping