

Jonathan Withers

Data Scientist — Ethnomusicologist

Recent ethnomusicology Ph.D. with 3+ years of experience in teaching a variety of subjects. With a background in physics and music, I excel at both numbers-based analysis and at communicating complex ideas in different ways.

EXPERIENCE

General Assembly 2018
Data Scientist in Training

Applied a broad range of data science tools to solve diverse problems, including web scraping, data munging, exploratory analysis and feature engineering. Built inferential and predictive models using regression, CART methods, support vector machines, and neural networks. Completed natural language processing and machine learning projects.

Salem State University 2016 - 2018
Visiting Lecturer

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

Brown University FALL 2016
Visiting Lecturer

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

EDUCATION

2010 – 2016 **Harvard University**
Ph.D.

2005 – 2010 **University of Pittsburgh**
B.S., B.Phil

INTERESTS

Music, Language Learning, Cooking, Camping

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RELEVANT SKILLS

PYTHON	NumPy, Pandas, Matplotlib, Seaborn, scikit-learn, StatsModels, NLTK, BeautifulSoup, spaCy, Keras
OTHER SOFTWARE	Spark, Tableau, SQL, R, \LaTeX , Microsoft Office

PROJECTS

Turkish Song Time Line

Scraped song lyrics of popular Turkish singers from a lyrics website and used topic modeling techniques to cluster them into genres. Organized this data by year and drew correspondences between lyrical themes in popular music and important events in recent Turkish political and social history.

West Nile Prediction

Worked with a team of three to build an effective predictive model for the presence of West Nile infected mosquitoes in Chicago. Created a cost-benefit analysis that could be used in decisions about when and where to spray to limit the spread of disease.

Reddit Comment Classifier

Scraped comments from two relatively popular subreddits, BlackPeopleTwitter and WhitePeopleTwitter. Used Natural Language Processing to train a classifier to predict which subreddit a comment would come from. Uncovered language patterns that differentiate discourse in online spaces.