

ZACHARY BRANDT

DATA SCIENTIST

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Skills

LANGUAGES

Python
MatLab
SQL
HTML/ CSS

DATA VISUALIZATION

Matplotlib
Seaborn
Streamlit/ Flask
Tableau

SOCIAL SCIENCE RESEARCH

SPSS
STATA
Google Suite
Qualitative Research

LIBRARIES

Pandas
Numpy
SciPy
Scikit-Learn
NLTK
Spacy
Beautifulsoup/Selenium
Tensorflow
Keras/ Pytorch
Music21

MACHINE LEARNING

Linear Regression
Classification
Natural Language Processing
Deep Learning

DATA STORAGE

PostgreSQL
MySQL
Spark
Git

Awards

Boy Scouts of America
· Eagle Scout
May 2013

Experience

Metis

Data Scientist

Remote

Sept. 2020 to Current

Completed an immersive 12-week data science bootcamp with a strong emphasis on project-oriented skill-building in problem solving, data wrangling, statistical modeling, machine learning, and communication of deliverables.

Project highlights include:

Topic Modeling of Song Lyrics: Exploring Gender Differences with NLP

- Performed topic modeling of 20,000+ song lyrics using NMF and LDA to demonstrate differences between male and female artists
- Collected song lyric data using Genius API
- Produced visualizations using Tableau
- Designed a Streamlit application that recommends songs based on lyrics written by an artist of the opposite gender

Sensorimotor Coupling in Music: What Music is Groovy?

- Based on conclusions reached by a study at UC Davis on how certain music engages the brain's sensorimotor mechanisms better than others
- Applied several classification models including gradient boosted decision trees and random forest to classify 150,000+ songs as either groovy or not groovy
- Collected song data using SpotifyAPI
- Designed a Streamlit application that returns the groovy songs of any given artist

Predicting Movie Sequel Success

- Built a linear regression model to predict the worldwide gross of a sequel given the data of the original
- Performed extensive feature engineering and regularization using LASSO and Ridge regression to achieve a test accuracy of 0.75
- Scraped data from IMDb.com using BeautifulSoup

Washington and Lee University

Teaching Assistant: Music Theory / Aural Skills

Lexington, VA

Sept. 2018 to May 2019

Prepared and delivered lectures to undergraduate students on topics such as fundamentals of music, ear-training, sight-singing, and keyboard proficiency, and graded students work on assessments.

Audio/Video Producer

Installed, adjusted, and operated electronic equipment to record, edit, and transmit radio and television programs, motion pictures, video conferencing, and multimedia presentations.

Lexington, VA

Sept. 2017 to Sept. 2018

Levy Neuroscience Grant Fellow

Conducted applied research on reproductive neuroendocrinology by implementing techniques such as immunohistochemistry and neuroimaging to investigate a rodent model of Poly Cystic Ovarian Syndrome. Performed descriptive and statistical analysis using SPSS.

Lexington, VA

Jan. 2017 to Sept. 2017

Education

The University of Sheffield

MA Music Psychology 2020

Sept. 2019 to Sept. 2020

GPA: 4.0

2019 - 2020 International Postgraduate Taught Merit Scholarship

Washington and Lee University

BS Music (Honors) 2019

Sept. 2015 to May 2019

GPA: 3.4

2019 W&L Robert Stewart Award
Todd Jones Memorial Fellowship