

TJ BURLESON

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SKILLS

PROGRAMMING LANGUAGES: Python, SQL

DATA VISUALIZATION: seaborn, Tableau, Google Slides, Custom Visualizations

CLOUD/DATA STORAGE: GCP

LIBRARIES: pandas, sklearn, numpy, beautifulsoup/selenium, keras, markovify, spaCy, scattertext

MACHINE LEARNING TECHNIQUES: Regression, Classification, Natural Language Processing, Unsupervised Learning (Topic Modeling), Neural Networks/Deep Learning

EXPERIENCE

Metis, *Data Scientist*, New York, NY

June 2020 - Current

Completed 12-week accredited data science bootcamp focused on Python programming, machine learning, statistical modeling, data visualization, project design, and communication. Highlights from some of the five end-to-end projects are listed in Projects.

Broadway, *Costume Attendant/Dresser*, Various Broadway Theatres; Moulin Rouge, The Band's Visit, Wicked, etc.

June 2018 - Mar. 2020

- Maintained costumes for Broadway productions by meticulously focusing on details at every point of contact to watch for newly needed fixes and preemptively catch upcoming fixes.
- Assisted actors with costume changes through efficient and ergonomic placement of garments to facilitate consistently rapid changes within the very brief time periods allotted.
- Flexibly adapted to unforeseen problems and obstacles by cultivating a deep understanding of the most important aspects of each moment during the show and acting to support those aspects as best as possible while quickly problem-solving.

Third Rail Projects, *Stage Manager, Costume Designer, Wardrobe Supervisor*, New York, NY

June 2013 - Sept. 2019

- Managed audience and actors for hundreds of performances by overseeing all technical and personnel elements involved.
- Designed costumes for productions from initial ideas through creation and fitting of custom and altered garments.
- Maintained costumes for a long-running show by interfacing with actors, costume designer, and production manager to assess and balance personal comfort within the defined aesthetics of the production and budgetary constraints.

PROJECTS

An Ode to Data Science: Generating Poetry with Neural Networks

Trained Markov chains via markovify, an LSTM model, and GPT-2 (124M) on three poetry datasets to study the effects of text size and homogeneity on text generation and the strengths and weaknesses of each model. Also composed an ode to data science using the three models listed and another dataset of odes and data science writing. Google Cloud Platform was used for storage and training purposes.

My (perfectly straightforward, not-at-all frustrating) NLP Journey: Analyzing Sarcasm in Reddit comments

Utilized unsupervised learning to perform topic modeling on a dataset of over 1M Reddit comments, and analyzed the role certain words play in marking sarcasm through scattertext and spaCy. Also developed a simple Flask app, 'The Sarcaz-ometer' which takes a user-input comment and runs it through three classification models to determine the percent likelihood that the comment was sarcastic.

'...is it GAY tho?' Using SVM to classify zip codes as "gay"

Built an SVM model to classify zip codes of 15 metropolitan areas as 'gay' (having gay residents amounting to at least 2.5% of the population) by using features of zip codes such as number of gay bars, whether there is a Pride parade, etc. Also visualized features in a Tableau dashboard including Census data of the age and income distribution by zip code.

Star☆Value 🍌 Predicting Anime Ratings with Linear Regression

Scraped data with beautifulsoup on 10K+ anime titles from a popular fansite, then found the most impactful features of highly-rated anime and predicted ratings for a holdout set of data using linear regression in sklearn.

EDUCATION

Rice University

B.A. Linguistics and Theatre

2008 - 2012