

Varsha Garla

Data Scientist

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EXPERIENCE

Metis

Data Scientist

July 2021 to Sept. 2021

Completed an immersive 10-week data science bootcamp with an emphasis on building skills in problem solving, data wrangling, statistical modeling, machine learning, and communication of project deliverables. Please see GitHub link to view project code and communication.

Project highlights include:

NLP Driven Scientific Journal Article Recommender

- Created a content-based recommendation system to provide relevant PubMed articles to a researcher
- Leveraged topic modeling and natural language processing on scientific paper abstracts to identify the most similar articles to user search input
- Tools: Sklearn (LDA, pyLDAvis, LSA, NMF, CountVectorizer, TfidfVectorizer), Pandas, Matplotlib, Regex.

Browsing or Buying? Predicting Online-Purchasing Behavior

- Built an interpretable classification model to identify which customers had a medium likelihood of making a purchase and would be influenced with coupon offer
- Provided e-commerce client with actionable recommendations to increase purchase conversion rate after interpreting model and identifying user and website features that drive transactions during online shopping sessions
- Modeling included logistic regression, K nearest neighbors, decision tree, and random forest
- Tools: Sklearn, Pandas, and Numpy.

Predicting the Prices of Airbnb Stays in NYC

- Used linear regression to predict the price of stays in NYC to identify reasonable price for Airbnb host based on property and listing features
- Final LassoCV model predicted prices within mean absolute error of \$38.47, and had R^2 of 0.56
- Scraped property and listing attributes scraped from Airbnb's website. Performed significant EDA for feature engineering.
- Tools: Sklearn, BeautifulSoup, Selenium, Pandas, Matplotlib, Numpy, Seaborn

Vanderbilt University Medical Center

Nashville, TN

Research Assistant

Aug. 2018 to May 2021

- Worked in Biobehavioral Approaches in Neurodevelopmental Disorders (BAND) Laboratory on Project SPIS (Sensory Project in Infant/Toddler Siblings of Children with Autism)
- Secured internal funding (a VICTR pilot award) for independent study to explore how early sensory differences predict high-risk infants' symptom trajectories until 36 months when ASD diagnoses are stable

PUBLICATIONS

Vanderbilt University Medical Center - Department of Hearing and Speech Sciences

Sensory Responsiveness Is Linked With Communication in Infant Siblings of Children With and Without Autism

(2021). Journal of speech, language, and hearing research : JSLHR, 64(6), 1964–1976.

https://doi.org/10.1044/2021_JSLHR-20-00196

Rutgers New Jersey Medical School - Department of Neurology

Quality of Life Changes during the COVID-19 Pandemic for Caregivers of Children with ADHD and/or ASD

(2021). International Journal of Environmental Research and Public Health. 2021; 18(7):3667.

<https://doi.org/10.3390/ijerph18073667>

EDUCATION

Vanderbilt University

B.A. Major Neuroscience 2021

B.A. Minor Spanish 2021

RELEVANT COURSEWORK

Programming & Problem Solving with Python

Data Structures & Program Design in C++

Computational Neuroscience

Statistical Analysis

Accelerated Single Variable Calculus

SKILLS

TECHNOLOGIES

Python, C++

C++

SQL

Scikit-Learn

Linear Regression

Classification

Unsupervised Learning

Natural Language Processing

Seaborn

Matplotlib

Tableau

BeautifulSoup

Selenium

ADDITIONAL SKILLS

Leadership

Communication

Public Speaking

LEADERSHIP

Vanderbilt BhangraDores Dance Team

Captain

- Led practices for team of twenty members on competitive dance team during weekly to prepare for collegiate competitions

Vanderbilt Student Government
Sexual Assault Awareness and Prevention Committee

- Led initiatives to raise awareness and prevent power-based violence on-campus through education, campus outreach, and collaboration with administration