Projects to Highlight

EASY Model

* Brief Description: The Encounter Appropriateness Score for You (EASY) Model is a clinical decision-support tool that predicts telehealth appropriateness for future visits based on factors such as diagnoses, medications, patient encounter data, and provider preference.
* Icon: <3
* Photo: flowchart (note: need to find HQ of the color edition)
* Items to highlight:
  + Poster
  + Paper: <https://doi.org/10.1002/acr.25247>
    - Arthritis Care and Research
    - First Published : 10/02/2023
  + Duke Institute for Health Innovation (DIHI) RFA 2023 grant recipient: granted to projects that contribute to the “automation to enhance healthcare operational efficiency”: <https://dihi.org/events/rfa/> & <https://dihi.org/project/easy-telehealth-care-optimizing-telehealth-in-rheumatology/>
* Collaborators:

Health Equity & Disparities in Quality of Patient Care (?)

* Brief Description:
* Icon: <3
* Items to highlight:
  + Impact

Multivariate Analysis of K-Pop Audio Features

* Final Description: This project was completed for the master’s thesis of my applied statistics degree at BGSU. I curated dataset of 12,012 Korean pop songs and their audio features using Python and Spotify API. Then, I applied advanced statistical methods such as regression, clustering, PCA, and hypothesis testing to extract insights on how audio features define the genre of K-pop and contribute to its global popularity.
* Long Description: This project is the thesis I completed for my masters of applied statistics degree at BGSU. The aim of this analysis was to leverage Spotify audio feature data to gain insights on how to characterize the genre of K-pop and to further understand its global popularity. To explore the popularity and identity of the genre, multivariate analysis is performed on a curated dataset of 12,012 K-pop songs and their audio features. The audio features, collected with Spotify's Web API and Python, include variables such as Danceability, Loudness, Acousticness, and Valence. Regression models are used to examine the relationship between audio features and popularity. Hypothesis testing is applied to compare audio features between different K-pop artist attributes (ex: gender, generation). Finally, dimension reduction of the audio features performed by Principal Components Analysis (PCA) paired with K-means clustering are utilized to explore the possibility of optimal song clusters within K-pop.
* Resume Description: Curated dataset of 12,012 Korean pop songs and their audio features using Python and Spotify API. Applied advanced statistical methods to extract insights on how audio features define the genre of K-pop and contribute to its global popularity.
* Icon : music note/headphones
* Photo:
* Items to highlight:
  + Thesis paper : <http://rave.ohiolink.edu/etdc/view?acc_num=bgsu1617105874719868>
  + Key Visualizations and takeaways
  + Recipient of Second place Paper presentation award at the 2021 Charles E Shanklin colloquium: <https://www.bgsu.edu/student-government/graduate-student-senate/ShanklinColloquiumGSSAwards/shanklin-colloquium.html>

American Soldier in WWII:

* Brief Description: Completed with the Data Science for Public Good program, this project leverages natural language processing (NLP), computational text analysis and social network analysis to glean insights into American soldiers’ attitudes about racial and ethnic relations as well as gender relations during World War II. The dataset is sourced from a unique and historic collection of “attitude surveys” that were administered to hundreds of thousands of American Army troops during the war in 1943. This project is part of the larger multi-institutional [American Soldier in WWII](https://americansoldierww2.org/) project funded by the National Endowment for the Humanities.
* Accolades:
  + Featured project for the Data Science for Public Good program with UVA.
  + Funded by National Endowment for the Humanities
* Resume description: Applied Natural Language Processing and Social Network Analysis on about 10,000 rows of historical text data extract insights on American soldiers’ sentiment towards race and gender relations during WWII.
* Icon: Flag
* Items to Highlight
  + The American Soldier in WWII overarching project : <https://americansoldierww2.org/>
    - Credited: <https://americansoldierww2.org/project-team-and-partners>
  + DSPG results website: <https://dspg-young-scholars-program.github.io/dspg20amsoldier/?dspg>
  + DSPG Online Symposium link: <https://datascienceforthepublicgood.org/events/symposium2020/poster-sessions/uva-soldier>
  + Key visualizations that I made and key takeaways
* Collaborators:

Economic Mobility of South Wasco

* Final Description: Developed a dashboard, using R (Shiny), to provide community decisionmakers of South Wasco, Oregon with baseline datasets and comparative analyses of the likely factors affecting economic mobility. Curated analytical datasets from local and federal datasets (American Community Survey) with R and the US Census API. This project was completed in collaboration between Cooperative Extension, the South Wasco Alliance, and the University of Virginia Social Decision and Analytics department.
* Brief Description: The purpose of this project was to provide community decisionmakers of South Wasco, Oregon with baseline datasets and comparative analyses of the likely factors affecting economic mobility. South Wasco County, Oregon, located in the state’s north central border, experienced significant economic decline in the 1980s driven largely by the loss of timber industry. This was followed by closure of schools and consolidation of students from school districts and an out-migration of residents that disrupted economic stability, community health, and quality of life. This project was completed in collaboration between Cooperative Extension, the South Wasco Alliance, and the University of Virginia Social Decision and Analytics department.
* Resume Description: Developed a dashboard using R (Shiny) to monitor 4 indicators of economic mobility for the civic engagement organization, South Wasco Alliance. Curated analytical datasets from local and federal datasets (American Community Survey) with R and the US Census API.
* Icon: paper airplane? 🡪 find a money icon!
* Visual: screenshot of dashboard
* Items to Highlight
  + DSPG Dashboard: <https://dspgtools.shinyapps.io/southwasco2020/>
  + DSPG Symposium link: <https://datascienceforthepublicgood.org/events/symposium2020/poster-sessions/uva-em-analysis>
  + South Wasco Alliance website: <https://www.southwascoalliance.org/>
    - Our project featured!: <https://www.southwascoalliance.org/projects>
  + Key visualizations that I made and key takeaways
* Collaborators:

OI : Consumer Sentiment on Glass Products

* Brief Description: Implemented data pipeline, using Python, Twitter, and Azure APIs, for collecting and analyzing social media data to extract business insight on consumer sentiment towards retail glass products and drive future marketing decisions.
* Icon: paper airplane? 🡪 find a money icon!
* Items to Highlight
  + Key
  + Github repo
  + NO PROOF OF DELIVERABLES TT

Market Research of Concert Attendance at BGSU

* Final Description: Independently conducted marketing analytics study that delivered actionable insights on increasing concert attendance at the BGSU College of Music. Designed, administered, and collected user surveys with Qualtrics and R. Analyzed surveys using A/B testing and Exploratory Data Analysis (EDA).
* Project Description: This project investigates the factors that influence students’ decisions to attend concerts at the College of Musical Arts (CMA). By methodology of survey research and statistical analysis, this project explores factors such as students’ personal music background (interest and education), effectiveness of marketing, personal incentive to attend concerts, and perceived level of the CMA’s engagement with the student community. The results of the survey analysis provides the College of Musical Arts with insights on marketing initiatives to attract the student community.
* Resume Description: Independently conducted marketing analytics study that delivered actionable insights on increasing concert attendance at the BGSU College of Music. Designed, administered, and collected user surveys with Qualtrics and R. Analyzed surveys using A/B testing and Exploratory Data Analysis (EDA).
* Icon: music headphones
* Items to highlight:
  + Poster <3
  + Paper : <https://scholarworks.bgsu.edu/honorsprojects/440/>
  + CURS Grant Recipient
* Credits:
  + Advisors: Jim Albert, Lindsay Gross

Note: Icons are font awesome icons for html