Ian James Douglas

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LinkedIn | Website | Github

SKILLS

Languages: SQL, python, R, Linux, Matlab, HTML, Javascript, Git, Docker, Singularity
Packages: pytorch, tensorflow, sklearn, open-cv, pandas, numpy, ggplot2, shiny, tidyverse
Statistical Analysis: Predictive Machine Learning (e.g., XGBoost, SVM, Random Forest, etc) Data Visualization , Computer Vision, Dimension Reduction (PCA, Networks, t-SNE, etc), Clustering (KNN, MDS, etc), Decision-Trees, Regularization, Regression/ANOVA, Model Inspection / Feature Selection, Bootstrapping, Model Diagnostics, AB Testing
Other: Communication, Model Insight Translation, Presentation, Writing, Teaching, Leadership

RELEVANT EXPERIENCE & PROJECTS

Data Analyst [contract], *Trinity Healthcare Resources*, Austin, TX Jan 2023 - Mar 2023

- I built proprietary SQL models to extract raw healthcare claims data, transform it efficiently, and feed pipelines for analysis. I wrote analyses to serve a dashboard to track business objectives, which improved the efficiency of team members to divert efforts where needed.
- I wrote statistical analysis pipelines to track the influx of different patient populations at hundreds of hospitals across the USA, culminating in reports with visualizations of trends, which contributed to a subscription-based product that hospitals subsequently purchased.

Ph.D. Researcher, *the University of Texas,* Austin, TX Aug 2020 - Jan 2023

- Using authorized APIs I scraped posts from Reddit containing images that I used to build a model of user preferences, showing that common aesthetic principles guided the perception of images from different object/semantic categories GitHub
- Using network analysis, I mined surveys about behavioral and emotional responses to the COVID-19 pandemic to determine common patterns of experiences and participant clusters, culminating in a presentation of the findings at a relevant conference GitHub
- Using a deep-learning computer vision model to classify types of interactions between two social partners, I wrote scripts to generalize the analysis to disabled populations and to take into account visual attention, accepted for presentation at CogSci 2022 GitHub

Data Analyst, *Columbia University,* New York City, NY Dec 2019 - Aug 2020

- Working in a neuroscience lab I built an interpretable machine learning classification pipeline to identify brain morphology associated with childhood trauma exposure, which led to new and undiscovered insights about brain morphology and development GitHub
- Working in a neuroscience lab I programmed an analysis pipeline to automate machine learning predictive model comparison and feature selection, resulting in peer-reviewed publication reporting the relation between gastrointestinal symptoms and anxiety Paper

EMPLOYMENT

Data Analyst, *Trinity Healthcare Resources LLC*, Austin, TX Jan 2023 – Mar 2023
Graduate Research/Teaching Assistant, *The Univ. of Texas*, *Austin*, TX Aug 2020 - Jan 2023
Data Analyst, *Columbia University*, *New York City*, NY Jan 2019 - Aug 2020
Clinical Research Site Manager, *Vanguard Research Group*, *Glen Oaks*, NY Aug 2016 - Aug 2018
Research Coordinator, *Vanguard Research Group*, *Glen Oaks*, NY Aug 2015 - Aug 2016

EDUCATION

Ph.D., Psychology Research, The University of Texas, *Austin, TX* 2023
M.S., Applied Statistics, Columbia University*, New York City, NY* 2020
B.S., Psychology, Trinity College*, Hartford, CT* 2015