JAMES Y. TANG

M: (610) 888-8241 | james.y.tang@vanderbilt.edu | 1720 Osprey Drive, Audubon PA 19403

EDUCATION

Vanderbilt University — Expected May 2022
Double Major B.A. in Applied Mathematics and Economics — *Nashville, TN*
Minor in Scientific Computing
GPA: 3.94/4.0 | Honors: Dean's List, Honors Economics Program
Senior Honors Thesis: Exploiting variations in commuting zone level manufacturing vulnerability to investigate the effects of Trump's trade war on the opioid epidemic
Relevant Coursework: Mathematical Data Science, Probability and Mathematical Statistics, Econometrics

WORK & RESEARCH EXPERIENCE

CVS Health - Analytics & Behavior Change — Jun 2021 - present
Data Science Intern, PBM Analytics — *Remote*

- Built a gradient boosting machine binary classifier using XGBoost and optimized via Hyperopt to predict specialty drug initiation on highly imbalanced classes w/ an F1 score that was 6.5x better than random
- Developed data pipeline with 1000+ features to capture disease severity, past rx dispense and medical behavior, and demographic information by using hive to query from a combination of medical, rx claims, and member level data
- Produced 10+ tables to understand the size, impact, and details regarding specialty trend and drug initiation
- Presented modeling process and EDA analysis through a stand-alone slide deck designed to help translate technical results into actionable business insights and next steps for both stakeholders and data scientists

Vanderbilt Political Science Department — Oct 2019 - present
Undergraduate Research Assistant - Media and Inequality Lab — *Nashville, TN*

- Automated process to scrape and aggregate text data for around 20,000 articles from the New York Times API
- Performed LDA analysis and keyword-assisted topic modeling to categorize the corpus of economic news coverage from 1980-2020 and compared trends in biases between news media outlets
- Conducted automated sentiment analysis on the corpus of *The Shark Tank* subtitles and visualized the change in positivity-scores over time
- Preprocessed complex geo-coded datasets to determine the effects of media on county-level electoral behavior

PJM Interconnection — Jun 2019 - Aug 2019
Advanced Analytics & State Government Policy Intern — *Audubon, PA*

- Developed 20+ visualizations in Tableau for PJM's executive board to address a $200 million mutualized default
- Extracted shapefiles to map 30+ live state congressional dashboards pertaining to energy and utilities policies

DATA ANALYTICS PROFICIENCY

Programming: R, Python, SQL, Hive/Hadoop, Tableau, ArcGIS, Mathematica
Concepts: Machine learning, wrangling and preprocessing, text analysis, web scraping, effective communication

LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

Delta Sigma Pi Professional Business Fraternity — Oct 2019 - Present
Recruitment Committee — *Nashville, TN*

- Organized recruitment process to evaluate and select new candidates with a recruitment team of 8 others

The Wond'ry Social Ventures Think Tank — Aug 2019 - Dec 2019
Social Enterprise Consultant — *Nashville, TN*

- Collaborated with six PhD and undergraduate students to launch a business model for a material reuse center
- Spearheaded community outreach to 30 potential partner organizations and local non-profit groups in 11 states

ORGANIZATIONS AND INTERESTS

Languages   Fluent in conversational Chinese (Mandarin), intermediate communication skills in Spanish
Organizations   Alpha Tau Omega Fraternity, Club Tennis, Vanderbilt Student Volunteers for Science