Drake Watson

Irvine, California

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Experience

Chapman University **September 2023 – Current**

Statistical Research Programmer *Irvine, CA*

- Harnessed python and R to perform analysis of the CURES-PDMP database provided by the DOJ in order to evaluate the current state of opioid and benzodiazepine prescriptions in California.
- Verified the integrity of currently deployed ML models that draw from the CURES-PDMP database in order to check the validity of widely used systems in the health care industry.

Publications

Examining Bias in the Narxcare Score **Value in Health, June 2024**

Dr. Sherry Wang Research Team, Chapman University *Irvine, CA*

- Investigated the relationship between protected demographic characteristics of patients and their associated risk score assigned by NarxCare. Applied statistical analysis to unveil discriminatory patterns related to one of the key features used by NarxCare to assess patients.

Education

Tacoma Community College **Sep. 2017 – March 2020**

Associate's in Mathematics *Tacoma, WA*

University of Washington **Sep. 2020 – July 2022**

Bachelor's in Mathematics – Minor in Data Science *Seattle, WA*

University of California - Irvine **Sep. 2023 – Current**

Master's in Data Science *Irvine, CA*

Relevant Coursework

- Linear Algebra
- Numerical Analysis
- Data Visualization
- Database Systems
- Statistics / Probability
- Data Programming
- Real Analysis
- Visual Design

Projects

Vaccine Scheduler | *Python, SQL, pymssql* **January 2022**

- Built a vaccine scheduling application, with the database hosted on Azure, that could theoretically be deployed by clinics to manage patient interactions through the terminal.
- Functionality of the application allows for patients to search for caregivers, check caregivers schedules, reserve appointments, show currently schedule appointments, and logout of the program.

World Happiness Report | *R, shinyapp, HTML* **May 2021**

- Create an interactive web application that allows users to explore the World Happiness report.
- Merge together several databases containing socioeconomic and demographic data to allow for users to dig into underlying variables that may correlate with the World Happiness data.

Video Games Sales | *Python, scikit-learn, plotly* **May 2021**

- Evaluate international video game sales numbers through multiple visualization techniques in plotly.
- Create a machine learning model to predict how games with certain characteristics would perform across different international markets based on the provided sales data.

Technical Skills

Languages: Python, R, SQL
Developer Tools: VS Code, PyCharm, Tableau, RStudio, GitHub
Libraries: Pandas, scikit-learn, matplotlib, ggplot2, dplyr

Honors / Accolades

Thomas P. Bleakney Endowed Scholarship in Mathematics **2022**

University of Washington

Academic Excellence Scholarship **2022**

University of Washington