JERAD WILLIAMS
DATA SCIENTIST

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TECHNICALL SKILLS

- Python (Scikit-Learn, NumPy, Pandas, PySpark)
- SQL (MySQL, PostgreSQL)
- Microsoft Office (Outlook, Excel, PowerPoint)
- Machine Learning (ML) (Logistic Regression, Classification, Bernoulli Naive Bayes, Decision Tree, and XGBoost)

- Time-Series Forecasting (ARIMA, SARIMA)
- Natural Language Processing (NLP)
- Statistics and Probability (A/B Testing, Bootstrap Inference, Bayesian Inference)
- Data Visualization (Matplotlib, Seaborn, Tableau)

EXPERIENCE

Predicting Hospital Readmission | Data Science Capstone Project| Link   June 2020 – September 2020
- Utilized NLP and Deep Learning techniques to build machine learning models to predict hospital readmission with discharge summaries to improve hospital resource utilization and reduce cost
- XGBoost ML building model gave best result - 0.73 AUROC Score, which is 0.02 less than the State-of-the-Art method which has a score of 0.75-0.76 AUROC (State of the Art method - https://arxiv.org/abs/1801.07860)

Covid-19 Hospital Resource Forecasting | Data Science Capstone Project| Link March 2020 – May 2020
- Forecasted via Autoregressive Integrated Moving Average models ARIMA and SARIMA to calculate how many COVID beds, ICU beds, and invasive ventilators needed for the coming year in the US
- Predicted inventory requirements of COVID-19 beds, ICU beds, and ventilators with a 95% confidence interval

ClipperCreek, Auburn, CA   December 2017 – Present
Data Analyst, Supply Chain
- Maintained performance of a supply chain from the initial order, to shipment, to billing, while ensuring top tier customer service and resolving any business issues or concerns with limited assistance from supervisor or director
- Initiated daily with 5 departments and developed KPI's in Excel using data analysis, data manipulation, analytical models to identify trends, and pivot tables. Increased inventory accuracy by 8%
- Led weekly forecast meetings with upper management and stakeholders (for product requirements); created and enhanced forecast database in Excel; forecast data management presentation directly impacted product roadmap

Burger Physical Therapy, Roseville, CA   October 2016 – November 2017
Rehabilitation Assistant
- Implemented treatment interventions in a manual therapy, evidence-based practice clinic and adapted and modified plan of care with supervision from Physical Therapist
- Documented and coded requirements for insurance programs in timely manner with 100% accuracy
- Designed and presented supervision and education to family/caregivers involved in treatment and care of patients

Vibra Hospital, Folsom, CA   March 2007 – September 2016
Supply Chain, Purchasing
- Liaised with all departments to develop policies for inventory optimization for strategic results through effective reporting, research, monitoring and cross-functional engagement; contributed to 20% inventory reduction
- Initiated monthly meetings with upper management teams to achieve higher accuracy when ordering medical equipment; followed through with vendors on shipments and deliveries; decreased 15% of inventory surplus
- Collected data using mathematics to procure quantity, price, and types of items received, stocked, and issued

EDUCATION

Springboard   September 2020
Data Science Certification Program
University of Sacramento State   June 2015
Bachelor of Science in Healthcare