

JERAD WILLIAMS

DATA ANALYST | DATA SCIENTIST

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TECHNICAL SKILLS

- Python (Scikit-learn (Sklearn), NumPy, Pandas)
- SQL
- Microsoft Office (Outlook, Excel, PowerPoint)
- Machine Learning (Logistic Regression, Classification, Bernoulli Naive Bayes, Decision Tree, and XGBoost)
- Time-Series Forecasting (ARIMA, SARIMA)
- Natural Language Processing (NLP)
- Deep Learning (LSTM)
- Statistic and Probability (A/B Testing, Bootstrap Inference, Bayesian Inference)
- Data Visualization (Matplotlib, Seaborn)

EXPERIENCE

Predicting Hospital Readmission | Data Science Capstone | [Link](#) June 2020 – September 2020

- Built machine learning models using Python, NLP and Deep Learning to predict hospital readmission with discharge summaries to improve hospital resource utilization and reduce cost
- XGBoost 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 | [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

Supply Chain Analyst

- Maintained performance of a supply chain from the initial order, to shipment, to billing, while ensuring top tier customer service and resolving any issues or concerns with limited assistance from supervisor or director
- Collaborated daily with 5 departments and developed key performance metrics (KPI's) using analytical models and mathematical analysis in Excel; increased inventory accuracy by 5%
- Led weekly forecast meetings with upper management and stakeholders (for product requirements); created and enhanced forecasts in Excel; forecasts 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 inventory policies and established accountability for strategic results through effective reporting, monitoring and cross-functional engagement; contributed to 20% inventory reduction
- Initiated monthly meetings with upper management to achieve higher accuracy when ordering medical equipment; followed through with vendors on shipments and deliveries; decreased 15% of inventory surplus
- Compiled and analyzed data of quantity, cost, and types of items received, stocked, and issued

EDUCATION

Springboard

Data Science Certification Program

September 2020

University of Sacramento State

Bachelor of Science in Healthcare

June 2015