DANIEL VANCE

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PROFILE

Data scientist with a strong background in math and creative problem solving. Passionate about helping others and my community to make lives better. Pursuing my Masters of Science in Data Science from Southern Methodist University while I am a report, software, and DevOps developer for the State of Oregon's Child Welfare System.

RECENT WORK EXPERIENCE

State of Oregon – Child Welfare System **October 2014-Present**
Programmer Analyst:

- Worked with the Office of Business Intelligence and the OR-Kids Business Analyst to develop reports and visualizations using SQL and SSIS.
- Rewrote federal reports in SQL stored procedures.
- Participated in code designs, reviews and deployments to the production system.
- Used Python, SQL, and SSRS to create an interactive data dictionary for the team.
- Designed, implemented and maintained the Child Welfare training environment technology.

TECHNICAL SKILLS

Statistical Methods: Regression models, hypothesis testing and confidence intervals, non-parametric modelling, ANOVA, machine learning (Clustering, SVMs, Random Forest) and data mining techniques/CRISP-DM
Software and Programming Languages: Python (Scikit-learn, Numpy, Pandas), SQL Server, PySpark, SAS, R, Java, PowerShell, MS Office, Eclipse, Visual Studio, TDD
Selected Coursework: Experimental Statistics I and II, Data Mining and Machine Learning, Statistical Sampling, Visualization of Data I and II, Data Modelling, Database Management Systems, Theory of Algorithms, Artificial Intelligence, Applied Mathematical Models, Computer Simulations, Software Engineering

EDUCATION

Southern Methodist University **Spring 2016-Present**
Master of Science in Data Science (Graduate August 2017)

California State University, Stanislaus **Fall 2011-Spring 2014**
Bachelor of Science in Computer Science
Minor in Business Administration

SELECTED PROJECTS

"Network Intrusion Detection System" Used CRISP-DM to explore machine learning algorithms that would best classify network traffic as an intrusion or not. Used exploratory data analysis, classification algorithms, and clustering to determine the observed traffics intentions. December 2016

"Analyze Presidential Primary Trends in Streaming Twitter Data" Used Apache Spark to stream data from Twitter, then analyzed it to determine if it was possible to gleam the winner based solely on tweets. Created my own tweet sentiment classifier in Python using the NLTK package. April 2016

"Using Facial Emotion Recognition to Analyze Polling Favorability Ratings of Three 2016 Presidential Candidates" Used Microsoft's Project Oxford and a Google Custom Search Engine to scrape face images from news sites and determined the face's emotion. The project was to analyze whether news sources were biasing the public's opinion of presidential candidates with the images they published. July 2016