Anudeep Vanjavakam

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Work experience

Moulton Niguel Water District, CA, US (Top workplace in OC) 2020 Jul - present

Senior Data Analyst

- Led short and long-range financial planning with senior management reducing 40% of manual processes resulting in AAA rating (Fitch, S&P) and GFOA Award for the company
- Built and deployed R shiny apps leading to a reduction in customer bill and rebate inquiries by 22%
- Strengthened financial reporting tools to monitor $100MM+ investments and cash flow trends saving almost $2.5M annually
- Implemented a python-based anomaly detection model to detect (up to 3 months early) meters at risk of failure resulting in savings of $44K per month for customers
- Deployed an R-Shiny tool to analyze user behavior and manage a customer acquisition and retention budget of $350K
- Coordinated with IT to add database indices on SQL Server that resulted in a 36% reduction in app load times and query processing times creating a better user experience for staff (internal reporting) and customers (website apps)
- Influenced billing policies for 32 agencies in California by developing an R-Shiny app that generates correlation insights between rate change, surcharge, revenue, and customer bills

Moulton Niguel Water District, CA, US 2016 Aug – 2020 Jun

Data Analyst

- Improved the efficiency of annual financial reporting by 85% using an Excel model, achieving 'Certificate of Achievement for Excellence in Financial Reporting' GFOA award
- Automated rate-bill verification process resulting in 86% reduction in manual effort while maintaining a 100% billing accuracy
- Built a monitoring system that alerts discrepancy between the enterprise billing system and vendor portal saving $68K

Skills

Programming: Python, R, SQL
Data Analysis and visualization: Pandas, Numpy, Matplotlib, Seaborn, Plotly, statsmodels, tidyverse, Tableau
Databases: SQL Server, MySQL, SQLite, PostgreSQL, Redshift
Cloud: Amazon Web Services (AWS), Redshift, S3
A/B Testing: experimental design
Machine Learning: Scikit-learn, PyTorch
Natural Language Processing (NLP): Sentiment analysis, Named Entity Recognition, spaCy, DistilBERT, Transformers
Recommender Systems: collaborative filtering, content-based filtering, rank-based recommendations, matrix factorization
Application/Model/Reports/Dashboard Deployment: Shiny, RStudio Connect, Streamlit, Flask

Education

Arizona State University - W.P. Carey School of Business, Tempe, AZ 2015 - 2016
Master of Science (MS-BA)
Business Analytics (GPA 3.97/4)

SRM University, Chennai, India 2009 - 2013
Bachelor of Technology
Major in Computer Science and Engineering (GPA 8.02/10)

Portfolio

Best Products on Reddit: App to search for top voted products based on NER and Sentiment Analysis
Rate Comparison: An R-Shiny tool to easily understand and compare the implications of different rate structures
Disaster Response ML Pipeline: Displays categorized events for directing messages to suitable disaster relief agencies based on user inputs
Article Recommendation System: Article recommendations for users based on their interactions on IBM Watson Studio

Certifications

- Data Scientist Nanodegree – Udacity
- Machine Learning by Stanford University – Coursera
- AI Programming with Python Nanodegree – Udacity
- AWS Machine Learning Foundations - Udacity

Publications

The Next Frontier: Individualized Rates Based on Cost of Service, American Water Works Association Journal, Nov 2022