

SANDEEP TIMILSINA

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SUMMARY

- Senior Software Engineer for 6 years with Bank of America developing products across different lines of business.
- Strong Knack for solving business problems with Analytics. Proficient in Python, SQL, Statistics and Machine Learning.

EDUCATION

- **W.P Carey School of Business, Arizona State University** August 2019 – May 2020
Master of Science, Business Analytics Tempe, AZ
- **National Institute of Technology, Warangal** July 2009 – April 2013
Bachelor of Technology, Computer Science and Engineering Warangal, India

PROFESSIONAL EXPERIENCE

Machine Learning Intern **Dell Technologies** **Dec 2019 - Present**
Implement Predictive and Prescriptive analysis to forecast CSAT influx from 'Summer Clinics', optimize the repair scheduling process and construct a dashboard to make project tracking seamless. (Python, SQL, Tableau, PowerBI)

- Python Developer** **Bank of America India Continuum** **July 2013 – June 2019**
- **Business Rules Engine | Python:** Implemented rules engine using decision trees for organized and efficient data validation reducing the average time spent by 38%. Time spent for a successful creation and editing of a milestone were used as tracking metrics.
 - **Project Dependency Tracker | Python:** Implemented dependency tracker to identify dependencies and prevent cyclic dependencies using graphs data structure. The tracker ensured correct entry of data in the system and alerted project owners on changes to dependencies.
 - **SQL alchemy abstraction layer | SQL | Python:** Implemented SQL alchemy abstraction layer for database abstraction and Object Relational Mapping. This structured approach gave a buffer time of 7 days for testing the project which was initially running late by 2 weeks.
 - **End of Day Business Data Caching | Python:** Created and implemented a generic caching module to help capture relevant data from the huge amount of End of the Day data generated. As a result, this module was used across various projects in the bank where efficiency in historical search and retrieval of data play a crucial role.

PROJECTS

- **Fake Job Prediction | Python:** Implemented a text classification model using scikit-learn multinomial Naïve Bayes, Keras and state of art NLP technique BERT to predict fake job postings by parsing parameters such as salary, employment status, required experience and job description.
- **Topic Modelling | Python:** Implemented Topic Modelling using LDA to identify the relevant topics for the given documents and predict a topic given a text for scikit-learn fetch_20newsgroups dataset. Used pyLDAvis for interactive topic model visualization.
- **Airlines Customer Satisfaction Analysis | R:** Performed Factorial Analysis and Implemented Logistic Regression to identify the dominant and hidden attributes that plays a crucial role in the customer satisfaction on both short-haul and long-haul flights and provide a comprehensive list of recommendations for aiding managerial decisions.
- **Grocery Sales Forecasting | Python:** Implemented Random Forest model for exploration and Deep Learning model for forecasting based on fast.ai Library to predict future unit sales for thousands of items sold at different Favorita stores located in Ecuador.

SKILLS

- **Programming Languages:** Python, R, SQL, Spark, C++, Java
- **Machine Learning:** PyTorch, Keras, Scikit-learn, Scipy, Pandas, NumPy
- **Web Technologies:** XML, JavaScript, HTML5, CSS3, Bootstrap
- **Tools:** AWS (S3, EC2, EMR), Git, Minitab, MATLAB
- **Visualization Tools:** PowerBI, Tableau

AWARDS

- **Diamond** award for 1st Prize in Internal Hackathon of Bank of America. (Developed XML Comparator) (2014)
- **Gold** awards for migration of UI from Python to React and Dependency Tracker development (2018 & 2019 Bank of America)