Prathamesh Satyawan Mahankal

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SUMMARY OF QUALIFICATIONS

- **Technical Skills**: Python (pandas, NumPy, scikit-learn), R, SQL, Keras, Tensorflow, Spark, Statistics, NoSQL
- **Tools and Frameworks**: Tableau, Power BI, Google Analytics, Advanced Excel, SSIS, Microsoft Office Suite
- Won the **Rising Star** award at **NASA's** International Space Apps Challenge Hackathon 2019 (out of 100+ participants).

PROFESSIONAL EXPERIENCE

Hi-Rez Studios, Seattle, USA June 2020 – Present

Machine Learning Engineer Intern (*Tensorflow, Pytorch, Hyperas, MySQL Workbench, Amazon Redshift, Spark*)

- Developed a data pipeline that uses complex feature engineering to generate a multi-purpose time-series based dataset for SMITE.
- Leveraged this dataset to build a Gradient Boosting Machine model that resulted in 4% better AUC in comparison to previous models.
- Built a sequence classification LSTM model and compared it with GBM, achieving a 12% and 8% rise is Precision and AUC respectively.

Institute of Health Metrics and Evaluation (IHME), Seattle, USA June 2020 – Present

Data Scientist (*Python, SQL, MySQL, Linux, Putty, Git, Github, Agile*)

- Building data cleaning and data preprocessing pipelines to enable researchers to model causes such as infertility and maternal health.
- Optimized data streamlining processes which reduced redundancy by 10% and subsequently increased computation speed by 30%.

The University of Washington, Seattle, USA January 2020 - June 2020

Graduate Teaching Assistant (*SQL Server Management Studio, Lucidchart, Tableau, Power BI*)

- Helping students understand several DBMS concepts like Entity-Relationship Modeling, Database Design and Normalization, Querying, Transaction Management, Views, Stored Procedures, Functions, Joins, NoSQL, and Database Applications.

Bank of America, Mumbai, India June 2017 - August 2019

Data Analyst (*Python, R, SQL, Advanced Excel, IBM Cognos, KDB+/Q, Tableau*)

- Collected, cleaned, and analyzed large unstructured equity trade data, as a part of a multicultural Big Data Analytics team.
- Demonstrated exploratory data analysis and visualization skills using Tableau that enabled clients to take data-driven decisions.
- Spearheaded the development of multiple ETL pipelines for creating standardized data repository from disparate sources.
- Automated productivity metrics reporting within the team using scripting, thus saving 20+ man-hours per week.
- Collaborated with cross-functional teams, contributing towards research, build, and deployment of various reporting components.

CoE-CNDS (Center of Excellence in Complex & Nonlinear Dynamical Systems), VJTI, Mumbai, India August 2016 - May 2017

Project Manager (*WirelessHART system, Amazon Web Services, Flask, Python*)

- Led a team to develop an Industrial IoT project that used the Wireless Hart technology for collecting humidity and temperature data.
- Maintained effective communication with the team and the stakeholders to ensure project efficiency and collaboration.

EDUCATION

The University of Washington, Seattle, USA September 2019 –Expected May 2021

Master of Science - Information Management - Data Science

Relevant Courses: Natural Language Processing (NLP), Business Intelligence, Machine Learning, Statistical Modeling, Strategic Leadership

Veermata Jijabai Technological Institute (VJTI), Mumbai, India August 2013 – May 2017

Bachelor of Technology - Electronics Engineering

Relevant Courses: Computer Programming, Statistics, Applied Mathematics, Image Processing, Data Mining, and Business Intelligence.

RELEVANT PROJECTS

Image Retrieval Using Caption Generator *(Microsoft Azure, Google Cloud Platform, Keras, InceptionV3, GloVe)*

- Built an image retrieval mechanism and image caption generator model trained on the MS COCO 118k dataset to train.
- Implemented Transfer-Learning based InceptionV3 model for image vectorization and pre-trained GloVe vector for word embedding.
- Evaluated and compared the performance of different model architectures to get the best model, using the BLEU score as a metric.

Using Behavioral Science to Fight Climate Change *(Clustering, Random Forest, Classification)*

- Designed a web platform that analyzes county-wise environmental metrics and uses inference-based Machine Learning algorithms to detect the exact problem faced by that county and suggest tasks to individuals based on the problem.
- Won the **Best Customer Validation** award among 100+ participants at the Techstars Startup Weekend Seattle hackathon.

Retail Business Process Improvement *(Research, Literature Review, Time Series)*

- Researched the problems faced by a departmental store at the UW and applied data-driven problem-solving to develop business models that resulted in improved profits, better customer service, reduced food wastage, and increased employee engagement.
- Performed Time-Series Analysis using ARIMA to forecast demand for each item, thus facilitating better inventory management.

Customer Segmentation Analysis *(kMeans, Trend Analysis)*

- Implemented behavioral analytics techniques to understand customer trends and determine what drives customer loyalty.
- Identified customer segments using the Recency, Frequency, Monetary (RFM) segmentation model and proposed personalized marketing strategies to tackle complex technical challenges independently and improve user engagement and retention.