

Prathamesh Satyawar Mahankal

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SKILLS AND ACHIEVEMENTS

- **Technical Skills:** Python (pandas, NumPy, SciPy, scikit-learn), R, SQL, Keras, Tensorflow, PySpark, Hadoop, NoSQL, AWS
- **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

Microsoft, Redmond, USA

October 2020 – Present

Student Researcher – Capstone (*GraphDB, Azure Data Lake, Machine Learning, CosmosDB, Data Mining*)

- Building an end-to-end platform that collects data from social media websites like Twitter and stores it in a Graph Database.
- Creating visualizations like network graphs to detect abnormalities in this data and analyze the spread of disinformation.

Hi-Rez Studios, Seattle, USA

June 2020 – Present

Machine Learning Engineer Intern (*PyTorch, MySQL Workbench, Amazon Redshift, Hypothesis Testing, PostgreSQL*)

- Developed a batch processing data pipeline that applies complex feature engineering on data consisting of over 4 million users and generates a multi-purpose time-series based dataset for SMITE, our free-to-play MOBA video game.
- Leveraged this dataset to build a Churn Prediction model that had 20% better AUC and thus improved user retention rate.
- Improved Item Recommendation System by A/B testing the impact of switching to item-based Collaborative Filtering technique.

Institute of Health Metrics and Evaluation (IHME), Seattle, USA

June 2020 – September 2020

Data Scientist (*Python, MySQL, Linux, Putty, Git, Agile, Performance Optimization, Test Automation*)

- Built data cleaning and preprocessing pipelines that enabled researchers to model non-fatal causes like Infertility and Hepatitis C.
- Optimized data-streamlining processes that 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*)

- Helped students understand DBMS concepts like Database Design and Normalization, Querying, Transaction Management & NoSQL.
- Conducted lab sessions for the BI course on topics like Descriptive, Prescriptive and Predictive Analytics, Text & Web Analytics, etc.

Bank of America, Mumbai, India

June 2017 - August 2019

Data Analyst (*Python, R, SQL, Advanced Excel, IBM Cognos, Tableau, ETL, Data Warehousing*)

- Led the development of multiple ETL pipelines to create a standardized data repository aggregating data from disparate sources.
- Optimized the collection, cleaning, validation, and exploratory data analysis of over 2 billion rows of daily equity trade data.
- Built the reporting infrastructure using SQL and Tableau to provide real-time insights into KPIs like Gain Pain Ratio and Sortino Ratio.
- Collaborated with cross-functional teams, contributing towards research, build, and deployment of various reporting components.

EDUCATION

The University of Washington, Seattle, USA

September 2019 –Expected May 2021

Master of Science - Information Management - Data Science

Relevant Courses: Business Intelligence, Natural Language Processing (NLP), 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 (*Deep Learning, Neural Networks, Microsoft Azure, Google Cloud Platform*)

- Built an image retrieval mechanism on top of a custom image caption generator model trained on the MS COCO 118k dataset.
- Implemented transfer-learning using InceptionV3 model for image vectorization and pre-trained GloVe vector for word embedding.
- Used the BLEU score metric to evaluate the performance of different Deep Learning model architectures and choose the best one.

Retail Business Process Improvement Using Business Intelligence (*Power BI, Microsoft PowerPoint, Project Management*)

- Created and maintained user-centric dashboards that informed business partners on key metrics and performance measures such as Inventory Turnover Ratio, Average Transaction Value, Year Over Year Growth, and Sell-Through Rate.
- Identified and recommended process improvements that boosted profits of the store by 30% over a quarter.

Customer Segmentation Analysis (*K-means clustering, Trend Analysis, Unsupervised Learning*)

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

Using Business Intelligence to Improve eCommerce Business (*SSMS, SQL Server Integration Services (SSIS), Tableau*)

- Extracted actionable insights from broad, open-ended questions to influence product strategy and meet business goals.
- Developed and monitored Key Performance Indicators (KPIs) like Conversion Rate, Shopping Cart Abandonment Rate, Product Affinity, Customer Lifetime Value (CLV), and Customer Acquisition Cost (CAC) to drive business growth and performance.