Parth Maniar

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SKILLS

Languages & Databases
Python, R, SAS, Scala, SQL, Java, JavaScript, MATLAB, NodeJS, C, Google BigQuery, MongoDB, Snowflake, Cassandra

Machine Learning & AI
Clustering, Modelling, Deep Learning, Regression, NLP, Computer Vision, LLMs, Statistics, Tensorflow, Scikit

Data & Analytics
Spark, IBM SPSS, Spotfire, Tableau, PowerBI, Neo4j, Oracle, Hadoop, Kafka, Qlik Sense, Google Analytics

Development & Frameworks
Git, Docker, Flask, NodeJs, Airflow, Kubernetes, Lambda, Looker, Azure, AWS, EC2

PROFESSIONAL EXPERIENCE

Software Engineer (Machine Learning), *Research Foundation at SUNY* — Mar 2023 – Present | Remote, USA

- Leveraged **Large Language Models** (**LLMs)** to develop **customized natural language processing (NLP)** solutions, on **500,000+** articles collected using web scraping & APIs resulting in a **40%** reduction in **data analysis** time and improved accuracy in extracting information.
- Executed **t-SNE & PCA models** on complex chemical datasets, resulting in a **30%** reduction in feature space while retaining **95%** of the variance. This deployment on **AWS (Amazon Web Services)** enabled faster & more efficient data processing, enhancing performance.
- Pioneered an intuitive **data visualization** tool using **Python & RESTful APIs** that allowed non-technical stakeholders to interact with t-SNE and PCA outputs, leading to a more informed decision-making process.

Data Engineer, *IQVIA* — May 2022 – Dec 2022 | North Carolina, USA

- Led **statistical analysis** on clinical data, pinpointing factors for patient scheduling success & optimizing resource allocation.
- Compiled and mined various data sources, leading team efforts to enhance **predictive model** accuracy by **20%.**
- Developed and maintained interactive **Spotfire dashboards** that **visualized** critical business metrics for executive **decision-making**, resulting **in an average weekly time savings of 2 hours.**
- Enhanced **SQL queries**, increasing **productivity by 40%** for faster data retrieval and **heightened analysis** efficiency.
- Collaborated to design & implement **microservices-based pipeline,** making **ETL** time **2x faster** and enhancing data accuracy.

Software Engineer (Backend & Data Science), *Tata Power* — Jan 2020 – Jul 2021 | Maharashtra, India

- Developed **weather-based load forecasting** models using **neural networks**, achieving 87% accuracy, and optimizing energy planning.
- Collaborated effectively with a cross-functional team comprising data engineers and product designers to strategically showcase essential **key performance indicators (KPIs**) for database performance, ensuring optimized data processing.
- Visualized **200 GB+** of time-series & geo data using **Tableau & MongoDB**, enabling impactful insights & driving data-driven decisions.
- Managed huge datasets with **MongoDB (NoSQL)**, improving query performance by 40% for efficient data processing.
- Implemented **"human in the loop"** approach, **reducing forecasting errors by 15%** and enhancing decision-making.
- Designed robust **APIs** for **model integration**, resulting in a **20%** improvement in scalability & providing user-friendly access to system.
- Automated end-to-end model training and deployment pipelines using **Apache Airflow**, reducing development cycles by an average of 2 weeks per model and **saving over $15,000 annually** in labor costs while ensuring models are always up to date.

Founder, *USAPA - Unified System for Agriculture Prediction using AI* — Feb 2020 – Jan 2021 | Maharashtra, India

- Designed & developed **AI platform** using ML algorithms for real-time crop yield prediction, including weather patterns, soil quality, and historical crop **performance**, resulting in **an 85% accuracy in yield predictions.**
- Incorporated district-specific predictions, aiding targeted resource allocation & contributing to **15% boost in local agricultural yield.**
- Secured a **$2,500** grant to develop initial proof-of-concept & fund cloud infrastructure costs, validating the commercial potential.

Software Engineer (ML), *India Meteorological Department* — Nov 2019 – Jan 2020 | Maharashtra, India

- Spearheaded the development of a cutting-edge **weather forecasting system** by integrating machine learning algorithms and historical meteorological data, improved **18.5% forecast accuracy** over existing models.
- Leveraged **data preprocessing** to clean & optimize extensive weather data, **cutting anomalies by 40%** & improving forecast reliability.

EDUCATION

Master of Science, Data Science, *University at Buffalo* — Aug 2021 – Feb 2023 | Buffalo, USA

Bachelor of Engineering, Information Technology, *Mumbai University* — Aug 2017 – Jul 2021 | Maharashtra, India

PROJECTS

Demand Forecasting For Online Bike Rentals Leveraging Geolocation Data

- Implemented geolocation-driven demand forecasting for online bike rentals and reducing inventory costs by 25%.

Data Exploration on Brazilian Website Olist Sales Data

- Built data analytics solution for Olist, empowering data scientists & product managers to extract insights & enhance business operations.

Lecture Notes Classification Using Deep Learning

- Created deep learning model for image classification, achieving 90% accuracy in automatically categorizing images as notes / not notes.

Property Investment Assessment using Machine Learning Models

- Implemented property investment assessment using machine learning, achieving the accuracy of 87% in estimating house sale prices.