



Sitanshu Kushwaha

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EDUCATION

New York University, MS in Computer Science Sep 2023 – May 2025 | New York
Courses: Data Science, Machine Learning, Cloud Computing, Big Data, Design & Analysis of Algorithms

University of Mumbai, BE in Computer Engineering Aug 2016 – Nov 2020 | Mumbai

PROFESSIONAL EXPERIENCE

Data Engineering Intern, NBCUniversal Jun 2024 – present | New York

- Developed and deployed an **ML-powered reporting system** on **Databricks**, leveraging **MLflow**, **CI/CD pipelines**, and **automated testing** to determine the optimal **cutoff time for live sports broadcasts**, maximizing **viewer engagement** and **ratings for Nielsen reporting**.

Data Science Intern, NYU IT Oct 2023 – present | New York

- Orchestrated an ETL pipeline using Airflow and dbt** to collect, transform, and store metadata in **Snowflake**, enabling a **RAG system** for **LLM-powered impact analysis**, allowing developers to assess schema changes, track dependencies, and retrieve insights on jobs, tables, and stored procedures.
- Developed a GenAI-powered chatbot in Streamlit with conversational memory**, enabling developers to query Snowflake metadata using **natural language**, receive contextual follow-ups, and analyze schema modifications, leveraging **LLMs and Cortex AI** for intelligent retrieval and automated impact assessment.

Data Engineer, LTIMindtree Jan 2021 – Jun 2023 | Mumbai

- Led the Data Engineering team** to optimize **Databricks Spark** code, reducing execution time by **30%** for **50%** of transformation jobs, improving **scalability** and **data timeliness** for multi-TB datasets.
- Implemented CI/CD pipelines** using **Git** and **ARM templates** in **Azure**, streamlining deployment, cutting **cloud costs by 25%**, and ensuring **automated updates** to **Big Data ETL workflows**.

Machine Learning Engineer, Oniria Creations Mar 2020 – Dec 2020 | Remote

- Trained a text classification model using **BERT embeddings** as input features and **TensorFlow**, achieving **92% accuracy** in identifying pet service provider websites from Bing search results.
- Developed an **automated NLP pipeline** leveraging **Named Entity Recognition (NER)** and a **fine-tuned BERT model** to extract and categorize structured data (e.g., business details, services, pricing) from pet service provider websites, building a comprehensive, queryable database.

Intern Machine learning Engineer, Toflo Fintech Consulting Dec 2019 – Mar 2020 | Mumbai

- Engineered a hybrid **Recommender System** for an e-commerce platform, combining collaborative and content-based filtering algorithms. Implemented A/B testing to evaluate performance.

SKILLS

Machine Learning — Scikit Learn, Tensorflow, NLP, Neural Networks, Deep Learning, **Models** — Regression models, Decision Trees, XGBoost, SVM, K-means, Hierarchical Clustering, PCA, CNN, RNN, LSTMs, ARIMA, **Big Data** — Apache Spark, Kafka, Databricks, Azure, AWS, GCP, Data Lake, ETL, NoSQL, **Data Visualization** — Tableau, Matplotlib, Seaborn, Plotly, **Languages** — Python, JAVA, SQL, **Tools** — Git, Docker

PROJECTS

Beyond the 9 to 5: A Multivariate Analysis of Work-Life Balance, Commuting, and Job Attrition, Data Analysis, Statistical Modeling, Data Visualization ☑

- Analyzed the influence of work-life balance and commuting distance on job attrition, with findings indicating that improved work-life balance and shorter commutes are associated with lower attrition rates, mediated by job satisfaction.

Subjective Answer Evaluation using Machine Learning, (NLP, Django, TensorFlow) ☑

- Incorporated state-of-the-art **NLP** techniques, including **BERT**, **USE**, and **Word2Vec** language models, to assess students' subjective answers by measuring **semantic similarity** against the teacher's answer.
- Published a **research paper** in International Journal for Scientific Research and Development ☑ .

AWARDS

1st Place - Innovation Business Case Project, NBCUniversal Aug 2024

2nd Place - Build with AI, Google Developer Group NYC Apr 2024