### Saharsh Kamod Koli

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#### **Education-**

### George Mason University, Fairfax VA, United States

(1/24 - 12/25)

• Master of science in Data analytical engineering.

**GPA - 3.85/4** 

University of Mumbai, India.

(6/19 - 6/23)

• B.E. in Electronics and telecommunication Engineering.

**GPA - 3.46/4** 

#### **Technical Skills**

- **Programming Languages**: Python, R, SQL
- Data Engineering & Big Data: Hadoop, Spark, BigQuery, Apache Kafka, Data Lake Architecture, ETL Pipelines
- Cloud Platforms: Google Cloud Platform (GCP), AWS (S3, Redshift, Athena, Lambda), Microsoft Azure
- Data Visualization & BI: Tableau, Power BI, Google Data Studio
- Databases: SQL, NoSQL (MongoDB), PostgreSQL, MySQL
- Machine Learning & NLP: Scikit-learn, TensorFlow, spaCy, Hugging Face Transformers
- Tools & Version Control: Git, Jupyter Notebook.

## **Experience**

## Siemens EA factory, Goa, India

(6/22 - 7/22)

Trainee Intern, Database management

- Developed a database management system using MS Excel and Visual Basic to track training outcomes for 800+ records.
- Streamlined database management processes, reducing reporting time by 30%
- Added advanced filters and reporting features, increasing system functionality by 20%.

## Numerouno Education Marketing Services Pvt Ltd, Mumbai, India

(11/22 - 1/23)

#### Sales Intern

- Assisted 50+ clients weekly, resolving 95% of queries within 24 hours and boosting customer satisfaction by 15%.
- Gained corporate exposure and enhanced communication skills through client interactions.

### **Projects**

### Database Querying and Reasoning for Financial QA (Fin-DBQA)

(09/24 - 11/24)

- Designed Fin-DBQA to address complex financial queries using Database Query Answering (DBQA) and NLP.
- Parsed questions to extract entities and measures, enabling accurate data retrieval and reasoning.
- Achieved 79% accuracy using spaCy for parsing and Hugging Face for model training.
- Focused on improving flexibility and handling diverse query formats in financial analysis.

# **Bridge Condition Analysis and Predictive Maintenance**

(10/24 - 11/24)

- Analyzed large-scale bridge assessment datasets to identify key factors influencing repair urgency and resource allocation.
- Correlated bridge conditions with weather, budget constraints, and structural attributes to propose cost-effective and timely maintenance strategies.
- Used regression models for financial analysis to forecast maintenance timing and costs based on predicted bridge conditions.
- Submitted project paper to infobridge FHWA for their competition.

### Montgomery County of Maryland Crash Reporting Data

(03/24 - 04/24)

- Predicted driver fault in traffic collisions using logistic regression, decision trees, and random forests, achieving 59% accuracy.
- Identified spatial accident patterns with k-means clustering, highlighting key factors like injury severity and lighting conditions to improve traffic safety.

### **Honors and Activities**

- Attended the AI + Robotics Summit in 2024 by SCPS in Washington, DC, to gain insights into cutting-edge technologies.
- Submitted a project paper on bridge maintenance and prediction to InfoBridge FHWA for their competition.
- Active member of the IEEE Technical Committee; organized workshops and led project teams, earning 1st runner-up for the final year project during bachelor's.
- Passionate about sports like cricket, football, and wrestling; committed fitness enthusiast.