Khushal Sharma

(716)-547-9553 | linkedin | email | website | github | Buffalo, NY

SKILLS

Python | MATLAB | Scala | JavaScript | HTML | CSS | SQL | Excel | SAS | SPSS | Spark | PowerBI | Tableau | CI/CD | ETL | Docker | git | Jenkins | Problem Solving | Quantitative Analysis | Statistics | Probability | Machine Learning | Deep Learning | NLP | Computer Vision | AWS | Azure Databricks | Product Management | Adobe Analytics | Data Mining

EXPERIENCE

AI/ML Software Engineer, Ilibrium | Vancouver, WA   **Apr 2023 - Present**
- Developing AI solutions for medical image obfuscation, protecting patient's data during WebRTC screen sharing.
- Optimized transfer learning and OCR for 90% F1 score, raising $500,000 funding from a major hospital in California.
- Led Integration of Speech-to-Text, Text-to-Speech, Text-to-Image APIs, boosting website user engagement by 30%.

AI/ML Software Engineering Intern, RIG Inc. | Bethany, CT   **Feb 2023 - Apr 2023**
- Innovated two pass solution for face detection microservice, adept at authenticating users with/without a covid mask.
- Implemented transfer learning via VGG16, BlazeFace. Further A/B testing resulted in 15% reduction of invalid users.
- Collaborated with a team of 6 following CI/CD practices to address latest client requirements via Jenkins, Docker.
- Achieved 93% F1 score. Integrated flask, django for backend. JS, HTML, CSS for frontend. Version control using git.

Teaching Assistant for MAE - 376, Applied Mathematics, University at Buffalo | NY   **Sep 2022 - Dec 2022**
- Oversaw 300+ students, graded student work, provided constructive feedback while ensuring academic integrity.
- Facilitated student learning by conducting problem-solving sessions, managed time, schedule for office hours.

Data Scientist, Evox Systems Pvt Ltd. | Mumbai, India   **Sep 2019 - Dec 2021**
- Spearheaded end-to-end data modeling tasks. Commencing data cleaning via ETL pipelines on Azure Databricks.
- Integrated Salesforce database with Tableau to automate company's sales reports reducing 9-man hours per week.
- Optimized ad policies, boosting KPIs (Click-Through Rate, Engagement Rate) for 9.3% higher user engagement.
- Analyzed customer churn through logistic regression, XGBoost, random forest, SVM, Bernoulli Naive bayes.
- Collaboratively Deployed customer segmentation models using k-means, mean-shift clustering, Docker, git.
- Evaluated & optimized model with hypothesis testing, A/B testing, boosting macro average F1 score to 92%.

PROJECTS

Airlines Cancellation Analysis | Language: Python | Analysis: MYSQL,PySpark,Scala | Cloud: Azure| ETL: Databricks
- Extracted data from API, loaded on Databricks-File-System(DBFS). Deployed spark jobs to perform transformations.
- Repartitioned, loaded data in parquet format on DBFS. Utilized SMOTE technique to handle major class imbalance
- Compared results from XGBoost, Bernoullie Naive Bayes, Random Forest to predict if flight gets canceled or not.
- Monitored ROC-AUC score, concluded Random Forest as best model with 95% F1 score on each class.

Stock Price Prediction using Financial News | Language: R | Analysis: MYSQL | pytorch,scipy,nltk,transformers
- Analyzed LSTM-based time series predictions with and without news articles from WSJ,Fortune,Reuters & more.
- Leveraged sentiment analysis using Huggingface's Roberta API for computing compound scores of news headlines.
- Observed 1.5% improvement in accuracy when trained with news articles resulting in validation accuracy of 97%.
- Visualized accuracies with vs without sentiment analysis using matplotlib and storytelling via Tableau dashboard.

Language translation using Attention Mechanism | Language: Python | Cloud: GCP | pytorch, tensorflow, numpy
- Executed language translation from English to Hindi using self, cross, multi-head attention mechanism from scratch.
- Trained transformer model comprising encoder - decoder architecture with a total of 48 million parameters via GCP.
- Improved significantly from fine-tuning the model to reaching BLEU (Bilingual Evaluation Understudy) score of 23.7.

EDUCATION

Master of Science in Engineering Science, major in AI & Robotics   **Jan 2022 - May 2023**
University at Buffalo, The State University of New York | Buffalo, NY

Bachelor of Science in Mechanical Engineering   **May 2016 - May 2020**
Gujarat Technological University | Ahmedabad, India

CERTIFICATION
- AWS Certified Cloud Practitioner | Digital Badge   **Oct 2023**