SATWIKA SRIRAM
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EDUCATION

Master of Science in Computer Science, Illinois Institute of Technology, Chicago, USA   **Jan 2024 - Present**
Coursework: Advanced Database Organization, Machine Learning, Information Retrieval, Data Mining, Data Preparation and Analysis   **GPA:4.0**

Bachelor of Engineering in Computer Science, Visvesvaraya Technological University, Bangalore, India   **Aug 2013 - Jul 2017**
Coursework: Data Structures and Algorithms, Web and application programming, Computer Networks, DBMS

TECHNICAL SKILLS

Data Science/Machine Learning: Statistical Analysis, Predictive Modelling, Ensemble Methods, EDA, Computer Vision, Image Processing, NLP Gradient Boosting Machines (GBM), Deep Learning, Embeddings, Graph Neural Networks (GNNs), Transformers, Large Language Models (LLM)
Python Packages: Pandas, Numpy, Matplotlib, Scikit-learn, PyTorch, Keras, Tensorflow, NLTK.
Programming Languages: Python, R, Java, Oracle PL/SQL.
Web Technologies: HTML, CSS, Javascript, AJAX, Flask.
Databases: Oracle Database,MySql, MongoDB, SQL Server, NoSql.
Tools: Tableau, Power BI, Oracle Apex, SQL Developer, Putty, WinSCP, ORDS, Oracle Forms Developer, Jupyter Notebooks
Cloud: AWS EC2, lambda, S3, dynamodb, Cloudwatch, Redshift, Sagemaker, API gateway.
Migration Tools: Git, VS Code, Oracle Data Integrator, PL/SQL Developer, HP ALM.

EXPERIENCE

Accenture, Bangalore, India   **Oct 2017 - May 2022**
Application Development Senior Analyst
Client : Siemens, USA

• Developed machine learning models using Python, TensorFlow for predictive analytics projects with statistical methods like multiple regression, time series analyses, experimental design, multi-variate and Bayesian testing.
• Executed data wrangling and exploratory analysis, utilized feature engineering, and applied model evaluation techniques, increasing model accuracy by **15%.**
• Developed and maintained sophisticated data solutions, promoting best practices that boosted operational efficiency by **25%.**
• Partnered effectively with multiple teams to align data science initiatives with organizational goals, increasing stakeholder engagement by **40%.**
• Orchestrated end-to-end data handling from collection to visualization, enhancing data cleanliness and analytics efficiency, resulting in a **20%** increase in data usability.
• Engineered fully automated report delivery system using AWS Lambda, S3 and SNS to deliver **200**+ reports/day reducing turnaround time by **30%.**

Application Development Analyst
Client: Merck, Germany

• Integrated AWS CloudWatch monitoring solutions for existing bid data pipelines for resource utilization and alarms for abnormalities.
• Developed various Tableau and Custom SQL extracts for report creation, enhancing report accessibility and user interaction by **25%.**
• Applied best practices in Tableau to optimize and maintain reports, resulting in a 30% reduction in load times and **20%** improvement in user satisfaction.
• Integrated SQL best practices to enhance the efficiency of queries for Redshift extracts, decreasing query response times by **40%.**
• Developed PL/SQL packages, types, triggers, views and sequences to migrate data into newly created tables from staging tables.
• Developed ETL processes for analyzing 5+million records to provide improved data insights to business by **15%.**

Application Development Associate
Client: Pearson, USA

• Enhanced data collection systems, integrating student records and survey data, resulting in a **30%** reduction in data retrieval times.
• Utilized statistical model analysis to derive academic trends, leading to a **15%** increase in the effectiveness of educational programs.
• Generated critical academic reports for decision-making, boosting report generation efficiency by **25%**.
• Partnered in predictive modeling initiatives that forecasted student performance, maintaining over **60%** accuracy in data integrity.

PROJECTS

Sentiment Analysis of Social Media for Brand Perception: **June 2023**
Analyzed social media posts to gauge public sentiment towards a hospitality brand. Employed NLP and sentiment analysis to classify posts and provide insights about brand, loyalty programs and help to refine marketing strategies.
Sales Forecasting Using Time Series Analysis: **Aug 2023**
Analyzed historic sales data of Walmart using Python and predicted future sales with enhanced forecasting accuracy by 30%. Optimize inventory management forecast with significant reduction of overstocking and understock.
Predictive Modeling for Customer Retention: **Dec 2023**
Developed a predictive model using Python and Scikit-Learn, employing logistic regression and random forest algorithms, coupled with feature engineering, to identify high-risk churn customers for a telecom company. Enhanced model accuracy to 75%, enabling targeted interventions that successfully reduced customer churn by 20%.
Web Crawling and Search Engine Project: **Mar 2024**
Engineered a robust web crawling and search processing system. Implemented a Scrapy crawler for efficient web document retrieval. Utilized Scikit-Learn to construct inverted indices with TF-IDF weighting and cosine similarity for accurate search result ranking.
CIFAR-10 Image Classification Project: **April 2024**
Developed and evaluated advanced deep neural network models for image classification, focusing on optimizing network architectures and training methodologies to improve accuracy and generalization across image sets.