JAYA SANDEEP KETHA

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Portfolio: https://jaya-sandeep-ketha.github.io/Portfolio/

EDUCATION

Master of Science in Computer Science, Indiana University Bloomington, Indiana Aug 2023 - Present
Courses: Applied Algorithms, Applied Machine Learning, Elements of Artificial Intelligence.

Bachelor of Technology, Indian Institute of Technology (IIT Bhilai), India Jul 2018 - Jul 2022
Courses: Applied Numerical Methods, Linear Algebra, Probability, Calculus. **CGPA:** 8.67/10
AWARD: Alumni Association's Young Researcher Award winner

SKILLS

Languages	: Proficient in Python, Java, C, CSS, HTML, MATLAB.
Tools/Libraries	: Git, Github, Jira, PowerBI, OpenCV, Numpy, Pandas, Matplotlib, Scikit-learn, Keras, Tensorflow.
Data Science	: Pyspark, CNN, KNN, K-means, PCA, Decision Trees, Regression, Time series forecasting, Bayesian Networks.
Databases	: MySQL.
Cloud Technologies	: Azure and Cloud Fundamentals, DevOps, Hadoop, Hive.
Courses	: Operating Systems, Data Structures and Algorithms, Object-Oriented Programming, Machine Learning, Deep Learning, Probability and Statistics, Recommender Systems.
Operating Systems	: Linux, Windows.

WORK EXPERIENCE

Analyst | Deloitte, Hyderabad, India Jun 2022 - Jul 2023

- Developed advanced time-series forecasting models for predicting net revenue, supply headcount, and expenses across all enterprise departments, achieving an **accuracy 97%+**.
- Created a robust **CAGR model** to establish a performance benchmark for evaluating other models; facilitated data-driven decision-making and provided customers with a comprehensive view of revenue growth opportunities.
- Orchestrated the **deployment of highly intricate pipelines**, including critical production environment, ensuring seamless integration and consistent performance of predictive models; leveraged expertise in distributed systems to drive efficient operations and achieve optimal results.
- Collaborated with a diverse team of **six professionals** to maximize project success through efficient software development practices.
- Engineered efficient **data extraction and transformation pipelines** for accurate input for algorithms, optimizing data mining efforts.
- Resolved 40+ **JIRA** tickets, enhancing project workflows and meeting deadlines with streamlined automation.
- Coordinated **project documentation** and knowledge sharing and enhanced new employee onboarding experience by reducing time spent for KT by 40%.

Tools Used: Pyspark, SQL, Azure Databricks, Azure DevOps, Jira, PowerBI, and Excel.

Achievements:

- Improved accuracy and efficiency of forecasting models by **7%**, leading to more informed business decisions and satisfied customers.
- Recognized with a **Spot Award** for consistent **diligence** in error identification, minimizing risks, and algorithm design.
- **Reduced computational time by 48%**, optimizing algorithms and pipelines for increased efficiency, resulting in quicker and more agile decision-making.
- Completed training in Deloitte AI Academy in Data Analysis, Machine Learning, and Artificial Intelligence for 2 months.

ACADEMIC PROJECTS

Trans Lingua Script | Deep Learning Feb 2022 - Jul 2022

- Engineered a sophisticated model capable of signboard detection, text extraction from signage, and subsequent transliteration into the Hindi language, attaining a commendable accuracy rate of approximately **90%**.
- Designed and executed an object detection model to identify signboard objects within provided images.
- Constructed a CNN-RNN encoder-decoder model to transform extracted signboard regions into textual content.
- Employed a sequence-to-sequence model integrated with an attention mechanism to transliterate character sequences from English to Hindi.

Tools Used: Python, TensorFlow, Keras, and Natural Language Processing.

Resell Radar | Machine Learning Aug 2021 - Nov 2021

- Developed a predictive model for pre-owned car prices by implementing Random Forest, Linear Regression, Ridge Regression, Lasso, KNN, and XGBoost models.
- Executed rigorous data pre-processing, including feature engineering and selection for improved pattern capture.
- Selected models systematically based on MAE, RMSE, and R2 score, optimizing accuracy through hyper-parameter tuning.
- Recognized among the top real-time projects for the Applied Numerical Methods course in the 7th semester.

Tools Used: Python, Pandas, Numpy, SciKit-learn, Flask, SQL, HTML, CSS, Git.