Ravi kumar Chavva

Portfolio : https://ravikumarchavva.com | **Github :** https://github.com/ravikumarchavva/ | **Email :** ravikumarchavva@outlook.com

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Projects

T20 Cricket Win Prediction *(GitHub 2024)*

- Designed a cutting-edge real-time win probability prediction model for T20 cricket matches, utilizing a sophisticated multi-model architecture.
- Integrated LSTMs for ball-by-ball sequences, CNNs for player statistics, and DNNs for team-level statistics, connected through a decoder network to generate comprehensive sigmoid outputs, leveraging PyTorch and WandB for model training and tracking.
- Developed a robust, scalable pipeline for data processing and model deployment using Apache Airflow,Spark and HDFS.
- Achieved an impressive **86% test accuracy**, with stage-wise evaluation showing an 85% F1-score in final overs, delivering actionable insights for real-time match analysis.

Customer Churn Prediction (GitHub 2023)

- Performed EDA on over 8,000+ customer records, identifying key churn factors and driving actionable insights.
- Built a classification model to predict customer churn, starting with linear models like Logistic Regression and achieving **56% recall**.
- Addressed class imbalance using **SMOTE**, improving the model's generalization ability on imbalanced datasets.
- Employed Boosting algorithms such as CatBoost and Bayesian Search to fine-tune non-linear models, achieving a 30% recall improvement over the baseline logistic model, leading to **86% recall**.
- Dockerized the model and deployed it as a serverless container using FastAPI for the backend to interact with the portfolio. It enabled real-time churn predictions with a response time of under 3 seconds.

Car Price Prediction (GitHub 2023)

- Trained a baseline model using Linear Regression, achieving an initial adjusted **R^2 score of 39%**.
- Enhanced model accuracy by implementing regularization techniques and conducting error analysis.
- Improved the adjusted **R^2 score to 85%** by incorporating ensemble methods like Bagging and Boosting.

Skills

- Python
- SQL
- PySpark
- Docker
- Pytorch
- Scikit-learn
- Tensorflow
- Statistical Modeling
- Deep Learning Architectures (CNN,RNN,VIT)
- Data Visualization (Matplotlib,Seaborn)
- Weights and Biases
- FastAPI
- Git
- Nextjs

Education

Bachelor of Technology (B. Tech) in Computer Science and Engineering
Sri Venkateswara College of Engineering, Tirupati, India | *2021 – Present* | CGPA: 8.4/10 | Major: Data Science

Sri Chaitanya Junior College, Andhra Pradesh, India | *2019 – 2021* | Completed with 94.7%

Target English Medium School, Andhra Pradesh, India | *2010 – 2019* | Completed with 10 GPA

Certifications

Machine Learning for Engineering and Science Applications (silver medal) – NPTEL

Experience

AI Intern - Aavaaz Dec 2024 – present

- Assist in the development, testing, and deployment of AI models for speech and language processing.
- Collaborate with team members to analyze data and improve system performance using cutting-edge AI technologies, including NLP and speech recognition models.
- Contribute to real-world AI applications, while learning and growing within the AI community.

Extracurricular Activities

Data Nexus: Founded a data science community at college, engaging 50+ students in workshops, hands-on sessions, and resource-sharing to accelerate learning and project development.