Ravi kumar Chavva

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

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Experience

AI Intern - Aavaaz **Dec 2024 – present**

- Working on **NLP tasks**, including **Sentiment Analysis** using **Python** and **PyTorch**.
- Assisting in **data preprocessing** and **model evaluation** for text classification projects.
- Collaborating with the team to **analyze datasets** and document insights.
- Actively participating in **learning sessions** to enhance AI and **speech recognition skills**.

Projects

T20 Cricket Win Prediction (project link) ***(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 (project link) **(GitHub 2024)**

- 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 average initial response time of under 3 seconds.

Car Price Prediction (project link) **(GitHub 2024)**

- 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

- Programming Languages
- Data Visualization and Manipulation
- Statistical Modeling
- Deep Learning Architectures
- Deep Learning Frameworks
- Deployment and Version Control Systems
- Machine Learning Operations (MLOps)
- Python, SQL
- Matplotlib, Seaborn, Numpy, Pandas, PySpark, Polars
- Scikit-learn
- Neural networks and Transformers (CNN, RNN, VIT)
- PyTorch, TensorFlow
- Fastapi, Next.js, Docker, Git, GitHub Actions
- Weights and Biases

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
- Machine Learning Specialization – Andrew Ng - Coursera

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.