Shashank Cheppala

EDUCATION

University of Illinois, Springfield

Master of Science - Data Analytics; GPA: 3.8

Illinois, USA

Jan 2024 - Present

Email: notedevelopment@gmail.com

TKR Engineering College

Bachelor of Technology - Computer Science; GPA: 3.3

Hyderabad, India Jul 2019 – Jun 2023

SKILLS SUMMARY

- Programming Languages: Python, SQL, R
- Big Data Technologies: Spark (PySpark, Spark SQL), Hadoop, Kafka
- Machine Learning: scikit-learn, TensorFlow, Keras, Hugging Face Transformers, GloVe, DistilBERT
- Data Wrangling & Visualization: pandas, NumPy, matplotlib, seaborn, GeoPandas, Tableau, Power BI, Excel
- Tools & Platforms: Google Colab, Jupyter Notebook, Streamlit, Docker, Git/GitHub, PyCharm
- Soft Skills: Leadership, Communication, Public Speaking, Time Management, Technical Writing

PROJECTS

• Fake News Detection Using LLMs and Deep Learning

Developed an end-to-end NLP pipeline to predict the "iteration" of synthetic fake-news articles across multiple co-evolution stages. The workflow included handcrafted linguistic feature extraction (readability, sentiment, lexical diversity), traditional classifiers (Logistic Regression, Random Forest), sequence modeling with GloVe-embedded Bi-LSTM, transformer fine-tuning (DistilBERT), and targeted back-translation augmentation.

Tech: Python, Jupyter Notebook, Google Colab, pandas, spaCy, NLTK, scikit-learn, TensorFlow/Keras, Hugging Face Transformers, MarianMT.

• Emotion-Aware Hybrid Model for Deepfake Video Detection

Built a two-stream system that precomputes video frames, extracts per-frame emotion vectors via FER+MTCNN, benchmarks emotion-only logistic, scratch CNN, emotion RNN and VideoMAE baselines, and trains a hybrid EfficientNetB0+Conv1D temporal head fused with global-pooled emotion summaries using custom binary focal loss.

Tech: Python, Google Colab, TensorFlow/Keras, TensorFlow Addons, fer (MTCNN), OpenCV, NumPy, pandas, matplotlib, scikit-learn, PyTorch, Hugging Face Transformers.

PUBLICATIONS

• A Comprehensive Approach to Sentiment-Based Dynamic Pricing

Published a research paper proposing a real-time dynamic pricing system driven by sentiment analysis and machine learning. Integrated NLP-based sentiment extraction from customer reviews and news articles with supervised models, and emphasized fairness in automated pricing.

Tech: Python, NLP, Machine Learning, Sentiment Analysis

• Behavior-Based Incentivization and Predictive Analytics

Explored the role of machine learning in shaping user behavior through incentives. Created synthetic datasets, applied logistic regression and Random Forest models, and analyzed the effectiveness of incentive strategies across domains.

Tech: Python, scikit-learn, Descriptive Analytics, Predictive Modeling

Link: Publication Link

Link: Publication Link

Honors and Awards

- Excellence in Event Leadership May 2023 [Certificate]
- Sports Achievement Award May 2023 [Certificate]
- Academic Excellence Award Dec 2022 [Certificate]

Volunteer Experience

Blood Donation Campaign - Friends2Support

Telangana, India

Conducted online and offline technical & soft-skills training impacting over 3000 students.

Jan 2020 - Dec 2023