Suhan Krishna Donthineni

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LinkedIn GitHub

Education

Birla Institute of Technology and Science, Pilani *Pilani, RJ | 2028*

B.E. in Electrical and Electronics Engineering
M.Sc in Mathematics

Skills

Languages: C/C++, Python, Verilog
Frameworks: Pytorch, TensorFlow, Pandas, NumPy, Matplotlib
Tools: Git, Linux, Docker, VS Code, iVerilog

Experience

Optimization of Media Operations with NLP | *Research Assistant*   *December 2024 -Present*

- Heading a team under Dr. Vinti Agarwal, developing a framework to optimize short form content based on viewer retention.
- Designed a data-driven pipeline for short-form content creation, based on an attrition index to quantify virality and user engagement
- Leveraging NLP techniques like sentiment analysis, emotion detection, controversy modeling, and topic modeling for enhanced content selection.

Computer Programming | *Teaching assistant*   *August - December 2024*

- Helped in managing this graduate-level course by personally tutoring over 30 1st year students.
- Covers C programming, data structures (arrays, strings, linked lists), and shell scripting.

Projects

Linear Algebra Framework | *C++, Shell*   June -July 2024

- Designed and implemented a linear algebra framework in C++, offering matrix operations targeted towards the development of classical machine learning models.
- Implemented key algorithms including Gauss-Jordan elimination for inversion, Cholesky and QR decomposition, and a stack-based method for rank determination.
- Leveraged the framework to build classical machine learning models from scratch, including Logistic Regression, Gaussian Naive Bayes, and Support Vector Machines.

NBA Points Prediction Model | *TensorFlow, Pandas, NumPy, PyTorch*   January 2025 - Present

- Designed and implemented a points prediction model for NBA players modeled on historical data.
- Utilized a weighted average ensembling approach to combine the strengths of advanced models such as XGBoost, 1-D CNN, LSTM, and GRU, optimizing performance through GridSearchCV.
- Employed sliding window sequencing to enhance data richness and improve algorithm learning capabilities.