Abhishek

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Professional Summary

Computer Science undergraduate with a strong foundation in **Machine Learning**, **Deep Learning**, and **NLP**. Demonstrated ability to develop and deploy end-to-end AI applications, including web-based tools and utilizing technologies like **Python**, **TensorFlow**, **Flask**, and **Streamlit**. Proven track record of achieving high accuracy in predictive modelling and classification tasks, with a keen interest in applying data-driven solutions to real-world challenges.

Education

UNITED COLLEGE OF ENGINEERING AND RESEARCH,

2021-2025

- Course: B.Tech in Computer Science
- **Coursework:** Object Oriented Programming, Database Management System, Machine Learning, Statistics, Data Structures and Algorithm.
- CGPA: 7.4/10

Projects

PUBMED LITERATURE SKIMMER - NLP, Deep Learning, Flask, Chrome Extension LINK

- Developed an NLP model to classify sentences from medical research abstracts into categories: **Background**, **Objective**, **Methods**, **Results**, and **Conclusion**.
- Utilized the **PubMed RCT 200k** dataset with 200,000+ labeled abstracts
- Applied token, character, and positional embeddings, and built a hybrid model using BiLSTM layers.
- Achieved ~89% accuracy in sentence classification.
- Deployed as a **Flask-based web application** and integrated with a **Chrome Extension**.
- This **project improves accessibility** for researchers by **summarizing large abstracts** in 5 classes.

WINE QUALITY PREDICTION - Machine Learning, Eda, Smote, Scikit-Learn LINK

- Built a machine learning model to classify wine quality using **physicochemical features**.
- Performed EDA, feature selection, and handled data imbalance using SMOTE
- Evaluated Logistic Regression, Naive Bayes, Decision Tree, and Random Forest
- Achieved 85% accuracy with Random Forest Model.
- Demonstrated practical applications of ML in food quality control.

FOOD VISION PROJECT - Deep Learning, Tensorflow, Keras, Food101 Dataset LINK

- Developed a deep learning model using TensorFlow and Food101 dataset with over 100,000+ images.
- Implemented **mixed-precision** training to **accelerate model performance** on GPU, **improving processing time by 30%**
- Built and fine-tuned, high-accuracy model, that **outperformed** the baseline **DeepFood model.**
- Achieved 90% validation accuracy on Food101 dataset in only 3 training epochs.
- Deployed using Streamlit for an interactive end-to-end web application.

Technologies

• Language: C, Python, SQL

• Frameworks: Pandas, NumPy, Matplotlib, Seaborn, Scikit-Learn, Tensorflow, Flask, Keras, Streamlit

• Tools: MS Excel, Power BI, MySQL, Postgres SQL

• **ML Algorithms:** Linear, Logistic, KNN, Decision Tree, Random Forest, K-Means Clustering, PCA, Naive Bayes, Handling Imbalanced dataset, NLP, Statistical Analysis.

Deep Learning: Neural Networks, CNN, NLP, RNN, LSTM, Transfer Learning.

• Full Stack Development: HTML, CSS, JavaScript, React.js, Next.js, Node.js, MongoDB, Mongoose.

Certificates

- Data Science Ainwik Infotech (2025) Certificate
- Machine Learning Softpro (2025) Certificate
- Introduction to Statistics Stanford (2025) Certificate

- Master MySQL for Data Science UDEMY (2025) Certificate
- Supervised Machine Learning Regression and Classification Stanford Deep learning (2025) Certificate
- NumPy for Data Science Real Time Exercises UDEMY (2025) Certificate