Chaitanya Kumar Sinha

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EDUCATION

- Pursuing Bachelors in Technology with a CGPA of 8.79 at VIT Bhopal.
  (September, 2021 Onwards)
- Completed Higher Secondary education at St. Paul's Convent Sr. Sec School, Ujjain,   *(June, 2021)*
  achieving a percentage of 95%.

SKILLS

Python, TensorFlow, Flask, Nginx, AWS, SQL, Linux.

PROJECTS

Rainfall Estimation and Energy Estimation Model: **(**January, 2024 **-** *April, 2024)*

- Engineered Rainfall Prediction System: Implemented an advanced prediction system using Indian rainfall data from 1901-2015, with a comprehensive dataset of 20,000 rows, employing various machine learning models and optimization techniques to enhance forecast accuracy.
- Implemented Data Processing and Model Training: Trained machine learning models (Linear Regression, Decision Tree, Random Forest, Artificial Neural Network) and optimized the models to a MAPE score of 0.003414, MSE score of 0.000048.
- Deployed the prediction system in agriculture and energy sectors, achieving a 30% crop yield increase through optimized water usage and reducing energy operational costs by 15% annually via improved hydroelectric power generation scheduling.

Phishing Website Detector   **(***November, 2023 - December, 2023)*

- Constructed a robust and efficient phishing website detector with 94% accuracy that can instantly classify URLs as clean or malicious.
- Created and trained a Random Forest model with a dataset of 1,000,000 URLs, achieving an RMSE score of 0.56 on the test set.
- Launched a real-time Flask model for website deployment, significantly improving user engagement and reducing bounce rate by 25%.
- Designed a user-friendly web interface for seamless URL classification.

INTERNSHIP EXPERIENCE

Bambhari Solutions (Machine Learning Intern)   *(July, 2023 – September, 2023)*

- Developed and trained a Random Forest model on 1 million URLs, achieving a 94% accuracy threshold. Conducted large-scale data preprocessing and feature engineering to enhance model reliability.
- Deployed the model using Flask on a web server, allowing real-time classification of website legitimacy. The web interface facilitates easy URL entry and automatic classification.
- Led a collaborative effort with interns to optimize model architecture, achieving a 30% performance improvement, and delivered a detailed presentation to stakeholders, earning accolades for increased usability and accuracy.

CERTIFICATIONS

- **AWS Certified Solutions Architect**, AWS   *(January, 2024)*
- **Machine Learning Internship Program**, SmartBridge   *(November, 2023)*
- **IBM AI Engineering,** Coursera   *(January, 2023)*

Extracurricular Responsibility

- **Content Team Lead,** English Literary Association VIT Bhopal   *(March, 2023 – April, 2024)*
- **Editor in Chief of ELA Gazette –** an Annual Club Magazine   *(March, 2022 – March 2024)*

AWARDS & RECOGNITIONS

- 5 Star in Python and SQL, Hacker Rank
- Brain of Madhya Pradesh – An Academic State-wide Competition   *(September, 2017)*