**Chaitanya Kumar Sinha**

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**EDUCATION**

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| B. Tech in Computer Science and Engineering | 2021-25 | Vellore Institute of Technology, Bhopal | 8.84 |
| CBSE (Class XII) | 2021 | St. Paul’s Convent Sr. Sec School, Ujjain | 95% |
| CBSE (Class X) | 2019 | St. Paul’s Convent Sr. Sec School, Ujjain | 95% |

**Internship/s**

Machine Learning Intern, **Bambhari Solutions**, Remote July, 2023 – September, 2023

Bambhari – offers a wide range of high-quality products designed to meet the needs of customers across various industries.

* Developed and trained a Random Forest model on 1 million URLs, achieving a 94% accuracy threshold.
* 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.
* Reduced bounce rate by 25%

**academic projects**

* **Project 1:** Rainfall Estimation and Energy Estimation Model (January 2024 - April 2024)
  + **Description:** Developed an advanced Rainfall Prediction System using historical Indian rainfall data from 1901-2015. The project involved processing a comprehensive dataset of 20,000 rows and employing various machine learning models like Linear Regression, Decision Tree, Random Forest, and Artificial Neural Networks.
  + **Role:** Managed data processing, model training, and optimization to enhance forecast accuracy.
  + **End-Result:** The system achieved a Mean Absolute Percentage Error (MAPE) score of 0.003414 and a Mean Squared Error (MSE) score of 0.000048. It was successfully deployed in agriculture and energy sectors, leading to a 30% increase in crop yield through optimized water usage and a 15% reduction in energy operational costs via improved hydroelectric power generation scheduling.
  + **Project 2:** Phishing Website Detector (November 2023 - December 2023)
* **Description:** Constructed a phishing website detector that accurately classifies URLs as clean or malicious.
* **Role:** Built and trained a Random Forest model using a dataset of 1,000,000 URLs, achieving an RMSE score of 0.56 on the test set. Designed a user-friendly web interface for seamless URL classification.
* **End-Result:** The model was deployed in real-time using Flask, which improved user engagement and reduced the bounce rate by 25%.

**Academic achievements and awards**

 Awarded "5 Star" ratings in Python and SQL on HackerRank.

 Winner of "Brain of Madhya Pradesh" – an academic state-wide competition in September 2017.

**positions of responsibility**

* Content **Team Lead, English Literary Association VIT Bhopal (March 2023 – April 2024)**
* **Role:** Led the content creation team for various events and publications.
* Editor **in Chief, ELA Gazette (March 2022 – March 2024)**
* **Role:** Managed the editorial team and oversaw the publication of the annual club magazine.

**otheR InFORMATION**

* Basketball – State Level Competitions
* 3 Year Guitar Lessons Under Prachin Kala Kendra, Chandigarh