Sahitya Kota

Hyderabad, Telangana Phone Number: No. +91-6305804823 Mail Id: [sahitya\_kota@outlook.com](mailto:sahitya_kota@outlook.com)

**EDUCATION**

**BTech Artificial Intelligence & Data Science** *CGPA: 8.19 / 10 (up to 4th semester)*

VNRVJIET, Hyderabad (*2021 – 2025)*

**11th and 12th Standard**  *CGPA: 8.76 / 10 (CBSE)*

**10th Standard**  *CGPA: 9.50 / 10 (CBSE)*

Vikas – The Concept School, Hyderabad

**PROJECTS**

**Full-Stack Book Data Management System**

* Modernized a MERN stack project into an interactive web application provisioning **over 1000 users concurrently**.
* Streamlined the website to enable effortless management and exploration of a vast collection of books, saving library staff about **30+ hours** every week, and **reducing login times by 40%** for the user with MongoDB.
  + Front-End: HTML, CSS, JavaScript, React.js
  + Back End: Node.js, Express.js
  + Database: MongoDB
* Implemented a Responsive and Intuitive User Interface with **6 components** and **5 webpages** overall driving a substantial **65% increase in user satisfaction**.

**Drowsiness Alerting System (2023 - Present)**

* Spearheaded a collaborative machine learning project to enhance safety and **prevent 78% accidents** caused by drowsy driving.
* Leveraging a dataset of 4000 image points, designed and developed a model regressively to precisely identify a user’s state within a 5-10 microsecond timeframe, achieving an accuracy of 87.9%.
* Tested 8+ techniques previously used and redesigned the models to eliminate errors by 2 times.
* Tools and techniques: Video Processing, Transfer Learning, Customization, Real-Time Analysis, TensorFlow with Keras.

**Traffic Data Analysis**

* Lead a team of three in identifying key correlations between 20+ location data attributes and traffic density over 10 years, applying advanced machine learning techniques such as Time Series,
* Surveyed traffic patterns and devised data-driven strategies to optimize traffic flow, resulting in a 25% reduction in average commute time and 15% decrease in traffic congestion within urban areas.
* Achieved **over 95%** precision in validating model accuracy (utilizing metrics like mean squared error).
* Skills applied: Data Collection, Data Cleaning of Data Analysis, Data Visualization using 5+ modules in Python.

**Ray Tracing Literary Research** *(November 7, 2023)*

* Analyzed **30+ papers**, synthesizing key insights and trends in ray tracing methodologies from diverse sources, condensing information by **80%.**
* Evaluated **5+ ray tracing implementations** for strengths, weaknesses, and innovation opportunities. Identified potential future avenues for ray tracing advancements based on reviewed literature.

**TECHNICAL SKILLS**

* Data Structures, Algorithms, Database Management, MySQL, Data Analytics, Git & GitHub, Full Stack Development, Machine Learning, Linux Programming, Operating Systems, Shell Scripting

**PROGRAMMING LANGUAGES**

* **PYTHON:** Basics, NumPy, Pandas, TensorFlow, Matplotlib.
* **JAVA:** Basics, Object-Oriented Programming**.**
* **C:** Basics, Data Structures, System Calls.

**WEB DEVELOPMENT** HTML5 CSS JAVASCRIPT REACT.JS

**COURSES & CERTIFICATIONS**

* Machine Learning Specialization by Stanford University & DeepLearning.AI on Coursera (3 Certificates earned by September 20, 2023).
* Cloud Computing Course Certificate (IIT Kharagpur NPTEL) - Top 5% (Silver) out of 16,686 students with 78%.
* IBM SkillsBuild Micro-Internship on Data Analytics: Completed a workload of 5 (1-2hr) certification courses and a data analytics project within a span of 2 weeks
* Linux Practical App Development Course and Prompt Engineering Certification of 25hours and 35 modules in total (offered by Infosys Springboard).