SUMERA AAFREEN Y

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OBJECTIVE

Ambitious B.Tech student with a specialization in Artificial Intelligence and Data Science, seeking an internship or entry-level position to apply and expand my expertise in AI/DS. Dedicated to driving innovation, leveraging data-driven insights, and contributing to impactful projects in a collaborative and dynamic professional setting.

EDUCATION

YEAR OF GRADUATION	INNSTITUTION NAME	CGPA/PERCENTILE
Sep 2027	Sri Krishna College of Engineering and Technology, Coimbatore	CGPA-9.48 (till APRIL 2025)
Mar 2022 & 2023	SRI Vijay Vidhayala Higher Secondary School, Dharmapuri.	HSC (1st Year): 92.5% | HSC (2nd Year): 94.5%

Area of Interest: Machine Learning, Neural Networks, and Full Stack Development..,

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SKILLS

- **Programming Languages:** C++, Python, Java(Specialized), SQL, HTML,React JS
- **Tools & Frameworks:** TensorFlow, OpenCV, Flask, React Native
- **Cloud Technologies:** AWS (Certified), Infosys Cloud Certification
- **AI & ML:** Computer Vision, Neural Networks, Data Preprocessing, Model Optimization

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EXPERIENCE

Apr 2024 - May 2024

TECHNOHACKS EDUTECH

- Developed and implemented an advanced machine learning model to predict red wine quality based on its chemical properties, improving accuracy and efficiency.
- Applied various machine learning algorithms, including regression, classification, and ensemble methods, to identify the most effective model for quality prediction.

- Analyzed model results and iteratively refined algorithms to optimize predictive accuracy, presenting findings and recommendations to the team.

PROJECTS

Erkalappai: Crop Yield Prediction Model
- Developed a machine learning model to predict crop yields based on weather data and market price analysis.
- Implemented data visualization techniques to identify trends and correlations in agricultural data.
- Integrated real-time weather and market data for accurate forecasting.
- Enhanced decision-making for farmers by providing data-driven yield predictions.

Drone-Based Apple Tree Health Monitoring
- Developed a CNN-based model for disease detection in apple trees using drone imagery.
- Integrated Inception Network for improved accuracy and efficiency.
- Used K-means clustering for leaf segmentation and disease classification.
- Implemented Jetson device for real-time processing.

Blind Stick for Visually Impaired Individuals
- Developed a smart blind stick using IoT and AI technologies.
- Integrated ultrasonic sensors to detect obstacles and provide haptic feedback.
- Implemented voice assistance for navigation guidance.

SkySense: Real-Time Environmental Monitoring
- Developed a web-based platform for real-time air quality and weather monitoring.
- Integrated APIs for fetching live environmental data, including temperature and pollution levels.
- Utilized interactive visualizations and predictive analytics for trend analysis.
- Deployed on Netlify for seamless accessibility and performance.

SQL-Based Data Management System
- Designed a secure Flask-based backend with MySQL and MongoDB integrations, supporting CRUD operations, login authentication, and user tracking.
- Inspired by tools like create-react-app, this tool scaffolded Flask projects with custom credential and database setup options.

RESEARCH

Early Detection of Osteoporosis ML Model.   IMPACT FACTOR: 7.4

Designed and developed a machine learning model for the early detection of osteoporosis using patient medical data. Pre-processed data to handle missing values, normalize features, and ensure dataset quality. Applied feature selection techniques to identify the most significant predictors of osteoporosis.

CERTIFICATIONS

Coursera:
- Fundamentals of Data Visualization with Tableau

Cisco:
- Introduction to Cyber Security

Infosys Springboard:
- MySQL as Datastore
- Database and SQL
- Clustering using Python
- Artificial Intelligence Foundation
- Java SE Features
- HTML and C++ Fundamentals

HACKATHONS & SYMPOSIUMS

- Finalist – Cood for good hackathon, JP Morgan Chase and Co, hyderabad
- Winner – Ideathon, Sri krishna College of Engineering and Technology
- Winner – Hackathon , Sri Sakthi Institue of Engineering and Technology
- Finalist – Innovateathon, Rathinam College, Coimbatore
- Participated – Hackathon, IamNEO technologies ,Coimbatore
- Participant – Aarush, SRM IST, Chennai

PERSONAL DETAILS

- **Date of Birth:** 02-12-2005
- **Languages Known:** English, Tamil , Urdu(Read & Write)
- **Nationality:** Indian
- **Address:** 8/15, Ghouse Shahib Street, Dekispet , Dharmapuri- 636701

(SUMERA AAFREEN)