EDUCATION Institute of Technology Bachelor of Technology in CSE (Data Science), Current CGPA: 9.50 - PresentClass 12th, Percentage: 92.8 Class 10th, Percentage: 92.8 Experience Backend Intern BRC - PresentRento(StartUp-• Developing backend services using for a startup's property management platform. • Implementing robust and scalable backend architecture to support core business functionalities. Intern Remote Zidio Development • Optimized a deep learning-based segmentation system, reducing processing time by 40%. • Refactored backend data pipelines with Python and , improving API response time. • Collaborated with engineers to deploy the system using and Research Intern Remote National Chung Cheng University, • Developed a real-time detection system with OpenPose and C++, improving accuracy by 40%. • Optimized image processing pipelines, reducing inference time by 20%. • Implemented a scalable backend using FastAPI and PostgreSQL for video data storage.

- Built a hospital management app using Flutter and Firebase, ensuring 99% uptime.
- Developed REST APIs and authentication, improving data retrieval speed by 50%.
- Optimized real-time appointment scheduling, reducing API latency by 25%.

Projects

Accident Detection Using Machine Learning and Python, Python, Inception V3

- Published a paper on an accident detection framework using machine learning and convolutional neural networks () for real-time video analysis.
- Utilized a large dataset to train the model, achieving high accuracy in identifying potential accident scenarios in real-time.
- Combined object detection and motion tracking techniques to accurately detect accident events in various environments.
- Optimized the model to function effectively within limited processing constraints, enhancing real-time applicability.

ChromaGenius: Deep Learning Image Colorization

Python, GANs

- Trained a deep learning model for image colorization using Generative Adversarial Networks (GANs).
- Executed adversarial training, enabling the generator to produce realistic colorizations of grayscale images.
- Achieved high-quality results by refining the model through iterative training, enhancing performance by 20%.
- Reduced training time by 25% through model optimization techniques.

Document AI: PDF Data Extraction

Lavout LLM Model v3

 Developed a PDF data extraction system using Layout LLM Model v3 for accurate, structured data extraction from unstructured documents.

- Automated workflows, achieving a 40% increase in processing efficiency and reducing manual effort.
- Advanced to the finals in a competitive showcase, highlighting the project's innovative impact and practical relevance.
- Optimized processing speed by implementing the Retrieval-Augmented Generation (RAG) technique, improving document parsing time by 20%.

AI-Powered Stock Market Prediction System

Python, TensorFlow, LSTM

- Designed a deep learning-based stock market prediction system using LSTM models to analyze historical stock prices and forecast trends.
- Enhanced model accuracy by integrating technical indicators like RSI and MACD as additional features.
- Implemented a pipeline for data preprocessing, feature engineering, and model evaluation, achieving a prediction accuracy improvement of 30%.
- Reduced prediction latency by 20% through optimization of model architecture and hyperparameter tuning.

Peer-to-Peer Platform

Database, Python, Blockchain

- Constructed a decentralized platform for peer-to-peer energy trading using blockchain technology, reducing transaction costs by 30%.
- \bullet Designed a secure transaction system facilitating energy exchange between producers and consumers, improving trading efficiency by 25%.
- Developed smart contracts to automate trading processes, increasing transparency by 40% and reducing manual intervention.
- Integrated real-time analytics tools, optimizing energy usage patterns and enabling users to reduce energy costs by up to 15%.

Secure Data Tokenization & PII Detection System

Python, FastAPI, Encryption, ML

- Developed an end-to-end pipeline for encrypting and tokenizing sensitive data using AES encryption.
- Implemented a machine learning model to detect Personally Identifiable Information (PII) in structured and unstructured data.
- Optimized API response time by 30% using FastAPI and parallel processing techniques.

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ACHIEVEMENTS	
Winner, HakTrax Alexa Developer Club Hackathon	
Second Prize, Layers 3.0 Competition	
TCS Codevita InterNational Coding Competition Rank-496	View Credential
Research Paper on Accident Detection	View Credential
Meta Hacker's Cup Participation Top	View Credential
CERTIFICATIONS	
Google AI ML AICTE Virtual Internship	View Credential
NPTEL Python for Data Science (Top 2%)	View Credential
NPTEL Programming in	View Credential
Altair Data Science Virtual Internship (AICTE)	View Credential
Intel Unnati Lab	View Credential
AWS Skill Builder Machine Learning	View Credential
TECHNICAL SKILLS	
Languages: Python, C/C++, SQL, Flutter, Script	

Frameworks: React, Django, Angular.js

Developer Tools: Git, Google Cloud Platform, VS Code, Google Colab, Android Studio

Libraries: Pandas, NumPy, OpenCV, Learn, TensorFlow, Keras, PyTorch, SciPy, seaborn, Plotly

Competitive Skills: LeetCode (1568), Competitive Programming (Codeforces 1300)