V Shreya Sivani

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Skills

Languages: Python, C++, C
Web Development: HTML, CSS, JavaScript, React, Next.js, Tailwind CSS
Machine Learning & Data Science: NumPy, Pandas, scikit-learn, TensorFlow, Keras, PyTorch, Matplotlib, LightGBM, XGBoost
Databases & Big Data: MySQL, MongoDB, Hadoop, Apache Kafka, Apache Spark
DevOps, Cloud & Tools: AWS, Docker, Kubernetes, Git

Experience

Centre of Computer Networks and Cybersecurity   June 2024 – July 2024
Research Intern   PES University

- Developed a digital twin system for healthcare monitoring using Contiki OS and Confluent Kafka, replicating real-time sensor states in a simulated environment
- Integrated backup sensor logic to activate upon primary sensor failure, improving fault tolerance and system reliability
- Optimized resource management algorithms, reducing sensor downtime and enhancing resilience across networked nodes
- Published research paper in Scitepress; presented at the 3rd International Conference on Futuristic Technologies (INCOFT 2025), Pune

Projects

Distributed File Orchestration and Synchronization System   **Github**

- Tools Used: Python, TCP, Unix Sockets, ThreadPoolExecutor, Multi-threading, Client-Server Architecture
- Implemented a multi-client file transfer system with authentication, supporting upload, download, preview, and deletion via concurrent socket connections and isolated directories on Linux

AI-Driven Disaster Debris Management System

- Tools Used: Python, YOLO, DeepLabV3+, ConvNeXt XL, OpenCV, Overpass API, Open-Meteo API
- Designed and currently building an AI-powered system for real-time debris detection, damage assessment, and emergency response optimization using drone imagery and ML pipelines.

Scalable URL Shortener   **Github**

- Tools Used: Python, Redis, Docker, Kubernetes
- Developed a containerized URL shortener with REST API and Redis-backed key-value mapping
- Deployed on Kubernetes with load balancing, autoscaling, and traffic distribution via Services and HPA

Personal Finance Visualizer   **Live** | **Github**

- Tools Used: Next.js, React, MongoDB, Tailwind CSS, shadcn/ui, Recharts
- Developed and deployed a full-stack expense tracking dashboard hosted on Vercel with interactive, responsive UI
- Implemented transaction management, category-wise expense tracking, and budget insights using dynamic data visualizations

Achievements

MRD Scholarship — Awarded for academic excellence in Semesters 1–6; ranked in top 5% of department by CGPA
Teaching Assistant — Data Structures and Algorithms for 3rd-semester students, PES University

Education

PES University – Bachelor of Technology in Computer Science and Engineering   Sept 2022-May 2026
CGPA – 9.41/10
Coursework: Machine Learning, Big Data, Deep Learning, Computer Networks, Operating Systems, Database Management Systems, Data Structures and Algorithms, Web Technologies, Software Engineering, Cloud Computing, Statistics for Data Science