


# V SHREYA SIVANI

## COMPUTER SCIENCE

### CONTACT

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 Bangalore, India

### SKILLS

- Programming Languages: C, C++, Python, Java, Golang
- Web Development: HTML, CSS, JavaScript
- Database Management: MySQL, MongoDB

### EDUCATION

**Bachelor of Technology in  
Computer Science Engineering  
PES UNIVERSITY, BANGALORE  
CGPA - 9.41**

2022-2026

### CERTIFICATIONS

- AWS Educate Getting Started with Compute - Amazon Web Services Training and Certification (Jan 2025)
- AWS Educate Getting Started with Serverless - Amazon Web Services Training and Certification (Feb 2025)
- Jira Work Management Certification - Atlassian University (Nov 2024)
- Problem Solving (Intermediate) in C - Hackerrank
- Certificate of Presentation – 3rd International Conference on Futuristic Technologies (INCOFT 2025), Pune, India

### AWARDS

- **MRD Scholarship:** Awarded for academic excellence in all semesters (1–6); ranked in top 5% of department CGPA.

### PROFILE

Motivated and enthusiastic third-year Computer Science Engineering student with a strong foundation in programming, data structures, and algorithms. Actively involved in academic projects that apply theoretical knowledge to real-world problems. Seeking opportunities to gain industry experience and contribute to innovative tech solutions.

### EXPERIENCE

#### Centre for Computer Networks and Cybersecurity

##### Enhancing Healthcare Resource Optimisation with Fault-Tolerant Digital Twin Technology

SUMMER RESEARCH INTERN - PES UNIVERSITY, BANGALORE JUNE 2024 - JULY 2024

- Technologies Used: Contiki OS, Confluent Kafka, Confluent Cloud
- Implemented a digital twin model with backup redundant sensors that activate when primary sensors fail.
- Optimised resource management and system reliability in a healthcare context.
- Successfully published a paper on my research in Scitepress having presented it at 3rd International Conference on Futuristic Technologies (INCOFT 2025), Pune, India

### PROJECTS

#### AI-Driven Disaster Debris Management System

Developed an AI-driven system for disaster debris classification and intelligent response planning using drone imagery and real-time analytics.

- Tech: Python, AI/ML Models, Computer Vision, Edge Computing, Cloud Integration
- Implemented machine learning models to categorize debris, while detecting human and animal presence to prioritize rescue. Integrated secondary risk forecasting and route optimization for efficient deployment of emergency response units and dynamic resource allocation based on debris volume.

#### Distributed File Orchestration and Synchronization System

Developed a multi-client file transfer system for Linux using socket programming to enable secure and concurrent file operations.

Technologies Used: Python, Unix Sockets, Linux

- Implemented client authentication, file upload/download, preview, and deletion features with support for concurrent connections, signal handling, and isolated client directories to ensure secure, scalable, and efficient file synchronization.

#### Load-Balanced URL Shortener using Docker & Kubernetes

Developed a containerized URL shortening service with scalable deployment and load balancing using Kubernetes.

Technologies Used: Python, Docker, Kubernetes, Redis

- Implemented API-based long-to-short URL mapping with a Redis-backed key-value store. Configured Kubernetes Deployments, Services, and LoadBalancer to distribute traffic across multiple instances, and integrated Horizontal Pod Autoscaler for dynamic scaling under load.

#### Personal Finance Visualiser App

Developed and deployed a live Vercel-hosted responsive finance tracking application.

- Tech: Next.js, React, MongoDB, Tailwind CSS, shadcn/ui, Recharts
- Features: Transaction management, expense visualization, category tracking, budget control, interactive dashboard with data-driven insights.

### ADDITIONAL PROJECTS

- **Hotel Management System** – Built a full-stack MERN app with user authentication, menu ordering, and reservation management using React and MongoDB.
- **Real-Time Order Tracking System** – Developed a Flask-based web app with order placement, live tracking, and an admin dashboard for inventory control.