

SACHIN A

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SUMMARY

Aspiring software engineer with a strong interest in distributed systems, machine learning, natural language processing, and full-stack development. Skilled in building secure, scalable, and intelligent solutions, with a passion for solving real-world problems through collaborative and innovative engineering.

TECHNICAL SKILLS

- **Languages:** Python, Java, C++, JavaScript, Dart
- **Systems & Tools:** Unix/Linux, Git, Bash, Azure, Docker, CI/CD, REST APIs
- **Web Development:** React, Flask, Bootstrap, HTML/CSS, Flutter
- **Databases:** PostgreSQL, SQLite, SQLAlchemy, SQL Plus
- **Machine Learning/NLP:** TensorFlow, scikit-learn, NumPy, pandas, Matplotlib, NLTK
- **Software Engineering:** Object-oriented design, API development, secure protocols, agile development

PROJECTS

Distributed Real-Time Collaborative Editor

Currently Working

(React · CRDT (Yjs) · WebSockets · Redis · CockroachDB · Kubernetes · Node.js)

- Designed and deployed a scalable, Google Docs-like editor with sub-180ms sync latency for 50k concurrent users.
- Engineered a CRDT-based sync layer using WebSockets + peer-to-peer WebRTC, with offline-first conflict resolution.
- Integrated edge caching, snapshotting, and real-time observability (Prometheus + Grafana) for live metrics.
- Implemented role-based access controls, encrypted data channels, and fault-tolerant server architecture with load balancing and Raft-based consensus.

Narratives in Motion – Interactive AI Storytelling Platform

Feb 2025 – March 2025

(Python · Flask · SQL · NLP (Text Classification & Sentiment Analysis))

- Built a dynamic storytelling platform using NLP to adapt plots based on user comments.
- Enhanced user engagement via intelligent branching and comment-based narrative dynamics.

Secure Data Sharing for Smart Cities

May 2024 – Jul 2024

(Flask · AES+RSA Encryption · RESTful APIs · Distributed System Design)

- Engineered a secure, scalable system for smart city data sharing using hybrid cryptography.
- Reduced API latency by 25% and cut system integration time by 30% through modular service design

WORK EXPERIENCE

AI/ML Trainee, SpectoV (Remote)

Sep 2024 - Oct 2024t

- Designed an automated pipeline for video object detection and upload using Flask and OpenCV.
- Built a Selenium-based resume parsing system for LinkedIn recruitment automation using NLP models.
- Integrated CI/CD workflows and deployed internal tooling with monitoring and logging.

R&D Summer Intern – VIT Chennai

May 2024 – Jul 2024

- Led a collaborative project on encrypted communication in smart cities using RESTful microservices.
- Focused on distributed design, scalability, and privacy-preserving protocols.

IoT Security Research Intern – ISACA Chennai Chapter (Remote)

Jan 2024 – Apr 2024

- Analyzed 100+ IoT protocols, identifying vulnerabilities and recommending security enhancements.
- Proposed security architecture improvements for embedded devices and edge systems.

CERTIFICATIONS

- Azure AI Engineer Associate – Microsoft, Jun 2025
- Supervised ML – Stanford Online, Jan 2025
- Goldman Sachs SWE Experience – Forage, Dec 2024
- Java Programming – Board Infinity, Jul 2024
- 100 Days of Code (Python) – Udemy, 2025

ACHIEVEMENTS

- **Best Paper** – AI Traffic Signals, SCES 2024
- **Book Chapter** – CPS Security (2025)
- **1st Prize** – Project Expo, Quality Week '24
- **Top 120/540** – VITSIH Hackathon 2024
- **1st Place** – App Marvel, TechnoVIT'23

EDUCATION

Vellore Institute of Technology (VIT), Chennai

Aug 2023 – Jul 2027

- B.Tech in Computer Science and Engineering (CPS), CGPA: 8.71

Chinmaya Vidyalaya, Rajapalayam

Graduated: April 2023

- Higher Secondary Certificate, Percentage: 91.3