

TIRUP MEHTA

FRONT-END ARCHITECT & SECURITY ENGINEER

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2x Google Student Ambassador (2025 & 2026) and outcome-driven software engineer operating at the intersection of development and defense. Specialized in architecting scalable, high-performance web applications using the modern React/Next.js ecosystem, backed by a methodical, code-first approach to cybersecurity. Proven track record in Vulnerability Assessment and Penetration Testing (VAPT), building AI-blocking middleware, and optimizing for high-leverage technical execution.

TECHNICAL ARSENAL

Front-End Architecture: React.js, Next.js, TypeScript, JavaScript (ES6+), Vue.js, HTML5/CSS3, Tailwind CSS

Back-End & Cloud: Python (Django, Flask), Node.js, AWS, GCP, Heroku, Nginx

Security & Defense: VAPT, Web Application Security, Bot Detection, OWASP Mitigation (SQLi, XSS), Cryptography

DevOps & Tools: Git, GitHub, npm Package Publishing, Chrome Extensions API, Kaggle

EXPERIENCE & EDUCATION

PSY9 Security

Oct 2024 – Jan 2025

Cyber Security Intern (VAPT Team)

- Conducted comprehensive Vulnerability Assessments and Penetration Testing (VAPT) to identify and patch critical security flaws in production environments.
- Collaborated with the security engineering team to mitigate OWASP vulnerabilities and fortify system perimeters against active exploitation techniques.

Dr. Subhash University

Junagadh, Gujarat

B.Tech in Computer Science Engineering (2nd Year)

2024 – 2028

KEY PROJECTS (PROOF OF WORK)

Discuss — Multi-Persona AI Chat Architecture

discuss.tirup.in

- Architected a premium, high-performance AI group chat platform where user prompts dynamically spawn specialized AI agents for multi-perspective discussions.
- Integrated secure Google OAuth and engineered a streaming request pipeline that parses a single AI payload into sequential, persona-driven responses wrapped in a pristine UI.

Tech Stack: Next.js, Google OAuth, LLM Streaming APIs, UI/UX Design

Trace Guard — AI & Bot Mitigation npm Package

[npm / GitHub](https://npm.com/package/trace-guard)

- Engineered a plug-and-play npm security package that installs in seconds to actively shield web applications from unauthorized data scraping and private asset extraction.
- Implemented behavioral telemetry and network interception to detect and neutralize sophisticated agentic browsers driven by Vision-Language Models (VLMs).

Tech Stack: TypeScript, Node.js, Behavioral Analysis, Package Distribution

Vectorize AI — Zero-Setup ML Integration

vectorize.in

- Architected a high-performance API service enabling small businesses to integrate AI capabilities with zero infrastructure setup.
- Built scalable endpoints handling concurrent requests securely while abstracting complex machine learning models into simple developer payloads.

Tech Stack: Next.js, TypeScript, API Design, AI/ML APIs

CodeXploit — Security Auditing Extension

[GitHub](#)

- Developed a high-performance Chrome extension tailored for developers to conduct real-time security auditing.
- Implemented active scanning algorithms to detect web application vulnerabilities, including XSS and SQL injection.

Tech Stack: JavaScript, Chrome Extensions API, Security Heuristics

ACHIEVEMENTS & LEADERSHIP

- **2x Google Student Ambassador (2025 & 2026):** Selected consecutively as the official campus liaison for Google technologies and developer relations.
- **Large-Scale Event Organizer:** Spearheaded and executed 2 major college technical events, successfully managing logistics and programming for over 130+ concurrent attendees.
- **AI Corporate Trainer:** Conducted an exclusive, high-impact workshop for the Junagadh Divya Bhaskar editorial team, training journalists and editors on leveraging Generative AI for operational efficiency.
- **Technical Author:** Actively publishing deep dives on front-end architecture and web security on personal technical blog (blogs.tirup.in).