THOTA VENKATA SAI SAMHITH

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SUMMARY

Computer Science Engineer with hands-on experience in full-stack development, cybersecurity, and AI integration. Skilled in building secure, scalable applications using React, Spring Boot, MongoDB, and conducting advanced penetration testing.

TECHNICAL SKILLS

- **Core CS Fundamentals:**
  - Data Structures & Algorithms (DSA), Object-Oriented Programming (OOP)
  - Problem Solving, System Design (Basic)
- **FullStack Development:**
  - Frontend: HTML5, CSS3, JavaScript (ES6+), React.js, Bootstrap
  - Backend: Node.js, Express.js, Java (Spring Boot), Python (Django, Flask)
  - Databases: MongoDB, MySQL, PostgreSQL, Firebase, Redis
- **DevOps & Cloud Platforms:**
  - DevOps Tools: Docker, Jenkins, GitHub Actions, Nginx, PM2
  - Cloud Services: AWS (EC2, S3, Lambda), Google Cloud Platform (GCP), Microsoft Azure (Basics)
  - Programming Tools: Git, GitHub, Postman, Swagger, Visual Studio Code, IntelliJ, Figma
- **Cybersecurity & Pentesting:**
  - Pentesting Tools: Burp Suite, OWASP ZAP, Metasploit, Nmap, Nikto, SQLmap, Hydra, Ffuf, Dirb
  - Techniques: Manual exploitation, payload crafting, fuzzing, post-exploitation
  - Methodologies: Reconnaissance, enumeration, privilege escalation, MITRE ATT&CK reporting
  - OWASP Top 10: SQLi, XSS, CSRF, SSRF, IDOR, RCE, Broken Authentication
  - Incident Response & Handling, Team Collaboration, Communication, Threat Detection & Mitigation, Threat Intelligence, Vulnerability Assessment, SIEM Tools
- **Networking:**
  - Protocols & Configuration: TCP/IP, DNS, DHCP, NAT, VLAN, Subnetting, VPN
  - Tools: Cisco Packet Tracer, Wireshark, Nmap, Putty, Fiddler, OpenVPN, Netcat, IP Scanner
  - Devices: Cisco routers & switches, firewall configuration
  - Concepts: OSI Model, network troubleshooting, access control, routing & switching
- **Artificial Intelligence & Machine Learning:**
  - Languages: Python, NumPy, Pandas, Scikit-learn, TensorFlow, Keras, PyTorch
  - NLP: NLTK, SpaCy, Hugging Face Transformers
  - Computer Vision: OpenCV, YOLO, MediaPipe
  - LLM Ecosystem: OpenAI, Claude, Gemini, Together AI, OpenRouter
  - Frameworks: LangChain, Pinecone, FAISS, RAG, Prompt Engineering
- **Android Development:** Android Studio, Kotlin, Firebase, XML, REST APIs, Activity Lifecycle

PROJECTS

- **VS-AI - Undetectable Exam Assistant** *Jan 2025 - Feb 2025*
  - Built stealth-based AI assistant using OpenRouter APIs (OpenAI, Claude, Gemini) with real-time answers under 5s
  - Integrated voice, screen parsing, and auto-response features using native Windows APIs
  - Project Link: tvssamhith.github.io/VS-IT-CHEAT
- **VS-AI Realtime Desktop Assistant** *Oct 2024 - Nov 2024*
  - Created drag-and-select desktop assistant using Python (Tkinter, OCR) with 95% accuracy
  - Auto-types generated answers at cursor location using under 100MB RAM
  - Project Link: tvssamhith.github.io/vs
- **VS-AI Mobile-to-PC Control System** *Jan 2024 - Mar 2025*
  - Built mobile-controlled AI assistant to trigger PC screenshots and auto-type answers
  - Achieved 4s end-to-end response time with model switching via OpenRouter
  - Project Link: GitHub
- **SmartFarm360 - AI Farm Management Platform** *May 2025 - Jun 2025*
  - Full-stack platform to monitor crops with OpenAI-driven advisory insights
  - Increased data visibility by 60% and cut manual effort by 70%
  - Project Link: GitHub
- **IntelliHire - AI Resume Screening Platform** *Mar 2025 - May 2025*
  - Built resume parser using OpenAI + LangChain with 85-90% job-match accuracy
  - Reduced recruiter screening effort by 60% via automated JD alignment
  - Project Link: GitHub
- **All-in-One Pentest Toolkit (Linux CLI)** *Nov 2024 - Jan 2025*
  - Developed CLI tool integrating 15+ recon, scanning, and exploitation scripts (Nmap, SQLmap, LinPEAS)
  - Reduced setup time by 50%, achieving 90%+ post-exploitation coverage in test labs
  - Project Link: GitHub
- **Python Offensive Scripts (Cybersecurity)** *Apr 2024 - Jul 2024*
  - Created 20+ scripts for network spoofing, DoS, and red teaming (MAC flooding, DNS spoofing)
  - Automated pentest workflows with up to 60% reduction in manual testing time
  - Project Link: GitHub
- **ESBuddy: AI-Powered Emotional Support Buddy** *Jan 2025 - Feb 2025*
  - Developed AI assistant detecting emotions through text, voice, and facial cues using NLP/deep learning
  - Enabled real-time empathetic responses via GPT API with privacy-focused communication
  - Project Link: GitHub/ES-Buddy
- **Red Team RAT Simulation Tool (RAT_CPP)** *Feb 2024 - May 2025*
  - Built staged C++ RAT with Windows API, TCP stager, and Discord-based C2 for red team simulations
  - Implemented custom encryption, persistence, and stealth mechanisms for ethical research
  - Project Link: GitHub/RAT_CPP
- **Intrusion Detection System using Machine Learning** *Feb 2024 - Apr 2024*
  - Developed LAN-based IDS detecting MITM attacks and MAC spoofing using Random Forest/SVM
  - Implemented with Python, Scikit-learn, and Flask for real-time threat alerts via web UI
  - Project Link: GitHub/IDS-Python

CERTIFICATIONS

- **Ethical Hacker (EH)** *Cisco Networking Academy · 2025*
- **Google Cybersecurity Certification** *Coursera · 2023*
- **Cisco Networking Academy: Networking Basics** *Cisco · 2023*
- **Cisco Network Support and Security** *Cisco · 2023*
- **Introduction to Cybersecurity** *Cisco Networking Academy · 2025*
- **SQL Injection Attacks** *EC-Council · 2025*
- **Introduction to Dark Web, Anonymity, and Cryptocurrency** *EC-Council · 2025*
- **Full Stack Development Internship Certificate** *Eagle Tech IT Solutions · 2024*
- **Systems and Usable Security** *NPTEL · 2025*
- **Programming In Java** *NPTEL · 2023*
- **Java Programming Certificate** *GeeksforGeeks · 2025*
- **Python Programming Certificate** *GeeksforGeeks · 2025*
- **C++ Programming Certificate** *GeeksforGeeks · 2025*
- **UI/UX for Beginners** *Great Learning · 2024*
- **Burp Suite Certified Practitioner (In Progress)** *PortSwigger · 2025*
- **Penetration Testing Learning Path (In Progress)** *Hack The Box · 2025*

WORK EXPERIENCE

- **FULLSTACK DEVELOPER INTERN** *June 2024 - July 2024*
  Eagle Tech IT Solutions, Tamil Nadu, India
  - Developed 3+ responsive portfolio websites with 100% mobile compatibility
  - Built secure login systems reducing unauthorized access risk by 90%
  - Implemented input validation using JavaScript and Spring Boot in a student registration module, reducing form errors by 70% and improving data accuracy for backend processing
- **FULLSTACK DEVELOPER INTERN** *Nov 2023 - Dec 2023*
  Coders Cave, Tamil Nadu, India
  - Built interactive Tic Tac Toe game with 100% component reusability
  - Developed real-time code editor with under 1s latency live preview

EDUCATION

- **Bachelor of Engineering in Computer Science** *2026*
  RMD Engineering College, Chennai · 7.3* CGPA
  Specialization in Full Stack Development (Honours Track)
- **Senior Secondary (XII)** *2022*
  Sree Chaitanya Junior College, Kavali · 8.5 CGPA
- **Secondary (X)** *2019*
  Narayana E-Techno English Medium High School · 10 CGPA

COMPETITIONS & CHALLENGES

- **Capture The Flag (CTF) Participant** *Hack The Box, picoCTF*
  - Engaged in real-world offensive and defensive cybersecurity challenges
  - Focus areas: Cryptography, reverse engineering, binary exploitation, web exploitation, privilege escalation
- **Bug Bounty Program Participant** *HackerOne*
  - Identified and responsibly reported security vulnerabilities in live systems
  - Experience with XSS, IDOR, CSRF, and SQLi vulnerabilities
- **TryHackMe - Cybersecurity Labs**
  - Completed hands-on labs on network penetration testing and web app attacks
  - Practiced Linux privilege escalation and red teaming techniques
- **LeetCode - Competitive Programming Platform**
  - Solved over 200+ coding problems spanning Easy, Medium, and Hard levels
  - Profile: leetcode.com/Tvssamhith/

BLOG & WRITING

- **Personal Cybersecurity Blog**: tvssamhith.blogspot.com
  - Ethical use of pentesting tools: Nmap, SQLmap, Metasploit, LinPEAS
  - Hands-on tutorials: Wi-Fi attacks, IP spoofing, privilege escalation
  - Python offensive scripts analysis