Ishaan Sheth

Third-year engineering student with an increasing passion in software development and computer security. Currently learning and researching system programming, web security, and ethical hacking using online websites and hands-on projects. Having a want to develop a solid background in secure coding methods, vulnerability assessment, and network protocols. Dedicated to a lifelong of learning and keen on shaping the security issues of the future.

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Education

- **Third Year Engineering** - Computer Engineering Department, Dwarkadas J. Sanghvi College of Engineering, Mumbai.
- **CGPA**: 9.56 (upto semester IV)
- **Relevant Coursework**: Data Structures, Algorithms, Object-Oriented Programming, Database Management Systems, Operating Systems, Computer Networks.

Technical Skills

- **System Programming:** Windows Kernel Debugging, IOCTL, Native API, WDK, Assembly (x86/x64)
- **Security Testing:** Vulnerability Assessment, Privilege Escalation, Reverse Engineering (pwn.college), XSS, SQLi, Path Traversal
- **Tooling:** Pwntools, WinDbg, Scapy, Ida, Ghidra, apktool, Jadx, Frida, tshark, Netcat, curl, metasploit framework (all done on Linux distribution Kali)
- **Web Security:** SOP, CORS, JavaScript Fetch API, Cookie Management
- **Networking:** TCP/IP, ARP Scanning, Protocol Dissection, Packet Crafting
- **Programming:** Python, Shell Scripting, Bash, SQLite, C, Java, HTML, CSS, JavaScript, x86 Assembly
- **Quantum Computing:** Qiskit, Quantum Algorithms (Grover's, Shor's), Quantum Circuits, Quantum Teleportation, Quantum Key Distribution, IBM Quantum Experience

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Experience

- **Research Internship at Veermata Jijabai Technological Institute(VJTI Mumbai)** – Reverse Engineering (3 Months)
  - Learnt and understood the fundamentals of how reverse engineering works. Got experienced with using tools like ida-free and ghidra. Understood how windows drivers work at a lower level.
- **Internship at Deloitte** – Risk Analyst (2 Months)
  - Analyzed vulnerabilities in software applications and created detailed reports for the client's software team.
- **Technical Co-com Member at ACM Committee** (9 Months)
  - Collaborated on developing a pressure-activated piano.
  - Assisted in creating a reaction speed test with buttons and buzzers.

Projects

- **Machine Learning Dog Breed Detector Model** – *Self-Initiated* (2024)
  - Developed a dog breed detector using Python and deep learning techniques.
  - Used multiple data preprocessing techniques to input the dog images into the models.
- **Web Server Using Assembly Code** – *Self-Initiated* (2025)
  - Built a web server using x86 architecture Intel syntax.
  - Designed to receive and respond to multiple HTTP GET and POST requests.

Research Papers

- **Quality Analysis of Borewell Water** *Under peer review*
  - We collected and analyzed borewell water samples to assess contamination levels.
  - Parameters like pH, TDS, nitrates, and bacteria were measured using sensors and lab tests.
  - Machine learning models were used to classify water quality and detect unsafe sources.
- **QVeriSign: A No-Cloning Authentication Framework** *To be Published*
  - We designed an authentication system that cannot be cloned, using quantum-safe principles.
  - It generates unique, unforgeable keys to replace traditional digital signatures.
  - The system is resistant to quantum attacks and efficient for real-world use.

Certifications

- **Certified JavaScript Developer** - Udemy.
- **Certified Python Developer** - STEM International.
- **Certified Java Developer** - DJ Sanghvi.
- **Certified C Programmer** - Udemy.
- **Cryptography and Hashing** - Well-versed in Python and Java (Udemy).
- **Ethical Hacking** - Well-versed (Udemy and pwn.college).
- **Cybersecurity** - (Udemy and pwn.college).
- **Quantum Computing** - Brief knowledge (Udemy).
- **AI-ML Developer** - Udemy.
