Ishitaa Jain

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Summary

Aspiring Full Stack Engineer with practical experience in full-stack software development and building secure, scalable systems. Successfully integrated various cybersecurity tools into applications, and developed AI-driven features. Prepared to leverage hands-on project experience and programming skills to contribute to innovative full-stack solutions.

Education

University of Cincinnati — Cincinnati, OH
Bachelor of Science in Computer Science — *Aug 2022 – May 2027*

Work Experience

Cybersecurity Research Intern – TCAAI, IIT Bombay -India — Jan 2025 - May 2025

- Simulated 10+ adversary tactics using Caldera & Atomic Red Team (spearphishing, PowerShell misuse, process injection).
- 30% improvement in endpoint visibility by developing OSQuery-based detections mapped to MITRE ATT&CK.
- Deployed Sandcat agents for real-time monitoring of malicious behaviors across Windows & Linux.
- Configured advanced event logging pipelines and enhanced anomaly detection.
- Integrated detection outputs into SIEM dashboards (Splunk/ELK).
- Collaborated with content strategists, UX designers, and QA to launch a training portal for internal staff.

Teaching Assistant (TA) – University of Cincinnati — Jan 2024 - Apr 2024

- Guided 100+ first-year students in Python programming, MATLAB scripting, and Excel automation.
- Supported faculty during lectures; shared practical insights with peers. Graded assignments & exams.
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- Provided feedback on written assignments, emphasizing clarity and critical thinking.

Projects

Signal Classification & Feature Engineering – Machine Learning Project — **Dec. 2025 - Present**

- Developed a supervised ML pipeline to classify sensor-derived signals using Python, NumPy, Pandas, and Scikit-Learn.
- Engineered statistical and time-series features such as energy, MAV, waveform length, and zero-crossing metrics.
- Trained and compared models including KNN, Logistic Regression, and SVM to select the best-performing classifier.
- Visualized data patterns and model decision boundaries with Matplotlib to interpret feature effectiveness.

UC DoubtClear – Q&A platform for UC students with AI integration — **June 2025 - Oct. 2025**

- Built a real-time student doubt portal with secure auth, role-based access, and instant updates using Supabase RLS.
- Developed a responsive frontend in React (Vite) + TailwindCSS with modular components and live question feeds.
- Integrated Langfuse for live prompt tracing, token usage logging, and debugging across GPT-4o agents.
- Deployed a GPT-powered assistant with memory and retrieval for 24/7 task updates and dependency risk queries.

CryptoApp – Secure encryption/decryption platform — **Feb 2025 - April 2025**

- Implemented file/message encryption & decryption with symmetric (AES) and asymmetric (RSA) methods.
- Built a Rust backend with Supabase for authentication, user management, and encrypted file storage.
- Designed a React/Svelte frontend with JWT-based authentication and role-based access control.
- Integrated hashing (SHA-256) for data integrity and ensured secure key management.

Skills

Programming Languages: Python, C++, C#, Java, JavaScript, MATLAB, LabView, TypeScript, PHP, SQL, Rust, Go, Swift, Kotlin

Frameworks & Development: .NET, React.js, Node.js, Express.js, Django, Flask, Svelte, REST APIs, GraphQL, HTML, CSS

Cybersecurity Tools: OSQuery, Caldera, Atomic Red Team, MITRE ATT&CK, Wireshark, Docker, Splunk, ELK Stack, Burp Suite, Metasploit, OpenSSL, JWT Authentication

AI/ML & Data Science: TensorFlow, PyTorch, Scikit-Learn, Transformers, NumPy, Pandas, Matplotlib, RAG, NLP

Cloud & DevOps: AWS, Azure, Kubernetes, GWS, Docker, Jenkins, GitHub, Kubeflow, CI/CD

Databases: MySQL, PostgreSQL, MongoDB, Redis, Supabase, BigQuery