JYOTIRADITYASINH CHAUHAN

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U.S. Citizen

Experience

Cybersecurity Intern   **May 2026 – Aug 2026**
LyondellBasell   Houston, TX
- Supported enterprise and operational software systems across regional manufacturing environments; assisted with incident triage and system monitoring
- Contributed to vulnerability assessment and remediation tracking; improved documentation workflows for a **15% faster issue resolution cycle**
- Partnered with senior engineers to standardize escalation, evidence capture, and reporting for secure operations

Research Assistant, AI Agents & LLM Systems   **Jan 2026 – Present**
University of Houston   Houston, TX
- Developed and evaluated Qwen-based AI agent systems with modular design, tool/function calling, and reproducible experiment runs
- Built **NLP** Retrieval-Augmented Generation (**RAG**) pipelines and retrieval evaluation to improve response reliability and reduce hallucinations
- Performed quantitative **model evaluation** and error analysis; reduced factual hallucinations by **30%** on benchmarked agent tasks

AI/ML Intern   **Sep 2025 – Dec 2025**
Tata Consultancy Services   Houston, TX
- Supported **data science** and **machine learning** work for enterprise clients in the Generative AI Center of Excellence
- Assisted with data preparation and lightweight **ETL**/preprocessing to enable analytics, experimentation, and prototype delivery
- Developed reusable reference architectures; shortened proof-of-concept timelines by **30%**

Teaching Assistant, Intro to Computer Science   **May 2024 – Aug 2025**
University of Houston   Houston, TX
- Supported instruction for large undergraduate courses in programming fundamentals and data structures; led office hours and labs
- Built and maintained instructional code examples and debugging tools; improved student debugging efficiency by **25%**
- Communicated complex concepts clearly and collaborated with staff to improve course delivery and student outcomes

Projects

CTF Blue Team Assessment | Detection Engineering + Incident Response   **Jan 2026 – Present**
- Designed and implemented modular detection logic and response workflows for simulated attack scenarios
- Engineered components with clear interfaces to support repeatable testing, debugging, and iteration
- Reduced investigation and analysis time by approximately **25%** through improved tooling, documentation, and structured triage workflows

Dating App (iOS) | SwiftUI + Firebase   **Aug 2025 – Dec 2025**
- Developed a SwiftUI-based mobile application with real-time authentication and messaging features
- Structured application logic using reusable views and service layers to improve maintainability
- Achieved stable performance for **100+ test users** through iterative testing and backend integration

Extracurriculars

Officer   **May 2023 – Present**
CougarCS – Information Security Branch
- Delivered hands-on cybersecurity workshops to **30+ students** covering Wireshark, packet analysis, and Linux fundamentals
- Organized CTF practice sessions and onboarded new members on safe lab setup and networking fundamentals
- Increased weekly attendance by **25%** by standardizing session structure (agenda + lab checklist) and sharing pre-work materials

Skills

Languages: Python, SQL, JavaScript, C++, Swift, R
Data Science / ML: Machine Learning, Spring, Business Analysis, Model Evaluation, Data Visualization, Mathematics, Data Solutions, Predictive Models, Statistics
NLP / GenAI: NLP, LLMs, Retrieval-Augmented Generation (RAG), Benchmarking, Natural Language Processing
Tools: Docker, Git, Linux, Firebase, SwiftUI, React