

Anurag Gupta

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EDUCATION

Vellore Institute of Technology, Bhopal

M.Tech (Integrated) - Computer Science and Engineering with Specialization in Cyber Security

CGPA: 8.76

Oct. 2020 - Jun. 2025

D.A.V. Public School

Singrauli, Madhya Pradesh

XII: 74.6%

Apr. 2019 - May 2020

D.A.V. Public School

Singrauli, Madhya Pradesh

X: 76.4%

Apr. 2017 - May 2018

TECHNICAL SKILLS

Languages: Python, Java, SQL, PostgreSQL, HTML/CSS JavaScript

Frameworks/Suits: GRC, NIST, MS office (Excel, Word and PowerPoint), Agile Methodologies, React JS, Node JS, MongoDB

Tools: Windows, Linux/Unix, Selenium, Tableau, Git, Docker, Kubernetes, Power BI, Google Collab, Jira

Familiar Skills: Operating System, Networking, DBMS, Cloud Computing (AWS), Written and Verbal Communication, Problem Solving, Data Analysis/Analytics, Reporting & Documentations, Team Work, SDLC

PROJECTS

Insight-Pro: eCommerce Analytics Suite

Python, SQL, Power BI, Google Analytics, AWS, Excel

Oct. 2024 - Nov. 2024

- Developed and optimized SQL/Snowflake queries to extract, transform, and visualize data, enabling accurate reporting on customer trends, product performance, and sales forecasting, aligning with data-driven decision-making strategies.
- Designed and implemented automated data pipelines in SQL/Snowflake to streamline data processing workflows, improving efficiency in expense tracking, financial settlements, and operational analytics.
- Utilized SQL and Power BI to create dynamic dashboards, transforming raw data into actionable insights for senior management, supporting investment and business analytics initiatives.
- Worked with diverse teams to enhance data integrity, maintain compliance with financial policies, and support process ownership, ensuring efficient data management aligned with industry best practices.

Adaptive Hybrid Ensemble Learning with Explainable AI for Anomaly Detection

Python, Machine Learning, Deep Learning

Aug. 2024 - Oct. 2024

- Designed and implemented a hybrid ensemble model combining CNN, Bi-LSTM, Random Forest, Gradient Boost, and XG Boost to enhance anomaly detection accuracy in network traffic.
- Integrated SHAP-based Explainable AI techniques to improve model transparency and interpretability, supporting critical decision-making in cybersecurity operations.
- Developed a scalable pipeline for preprocessing, multi-model classification, and real-time explainability, tailored for high-volume and heterogeneous network environments.
- Achieved 99.98% accuracy on CICIDS2017 and 97.71% on UNSW-NB15 with false positive rates as low as 0.02% and 0.01%, validated using ROC analysis and SHAP visualizations.

Container Identity and Access Management

Python, Next JS, JSON, Docker, Bash Scripting

Aug. 2023 - Oct. 2023

- Designed and implemented a secure container identity framework by generating hashed identifiers (Docker IDs, container IDs) linked to access privileges, ensuring granular identity verification in runtime and testing environments.
- Developed a Python-based logic layer integrated with Docker and Bash to automate identity generation, access mapping, and secure role-based controls across containerized services.
- Engineered a modular front-end using Next.js for real-time visibility into container access rights and lifecycle events, enhancing security posture and operational transparency.
- Improved container runtime security, isolation, and auditability in DevSecOps pipelines by enforcing dynamic identity binding—resulting in a 40% reduction in unauthorized access attempts and a 30% improvement in audit traceability.

CERTIFICATIONS

- **AWS Certified Cloud Practitioner** | Amazon Web Service Dec. 2023
- **The Bits and Bytes of Computer Networking by Google** | Coursera Apr. 2023
- **Junior Cybersecurity Analyst Career Path** | Cisco Apr. 2022

ACHIEVEMENTS/ CO-CURRICULAR

- Published a paper entitled “Hybrid Ensemble Learning with Explainable AI for Anomaly Detection in Network Traffic”
- Earned 5 Stars in Java, Python, and C/C++ on Hackerrank.
- Solved 200+ problems on Leetcode and 300+ problems on Geeks for Geeks.
- Certified Acquiring Data by NASSCOM & Skill India.

LEADERSHIP / EXTRACURRICULAR

Sports Selection – AdvITYa

- Coordinated and supervised for a smooth and fair competition during AdvITYa’23

Executive Coordinator, Techno-Mech Club

- Directed club activities, orchestrated events, and enhanced member engagement through various technical and mechanical projects.

LANGUAGES AND INTERESTS

Languages: English, Hindi **Interests:** Market Analysis (Fintech), Geopolitics, Badminton, Chess, Podcast