

# 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: 8.98

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