

Devang Dhanuka

+1(908)935-8654 | devangdhanuka@gmail.com | devang1304.github.io

EXPERIENCE

Graduate Research Assistant - AI in cybersecurity

Oct 2024 – Dec 2025

Rochester Institute of Technology — Advisor: Prof. Nidhi Rastogi

Rochester, NY

- Developed an explainability framework on Temporal Graph Neural Networks (TGNN) using DARPA Trusted Computing datasets, improving transparency and trust of cybersecurity alerts.
- Implemented explainability methods (GraphMash, GNNExplainer & a proposed VA-TGExplainer), analyzing fidelity, stability, and accuracy, to generate reports and SOC dashboards (Streamlit), enhancing analyst decision-making.

Senior Engineer - Cloud Infrastructure & Security

Aug 2020 – Jun 2023

Netwoven Inc.

Kolkata, India

- Managed Azure cloud infrastructure** for enterprise deployments, implementing **governance frameworks** (resource tagging, cost allocation, budget alerts) and optimization strategies that improved billing accuracy and reduced cloud spend by 20-30% while maintaining performance.
- Led **Microsoft 365 tenant migrations** for **5,000+ users** with 99.9% uptime, implementing enterprise security controls (**Information Protection, DLP, Intune MDM, Conditional Access, MFA**) to establish zero-trust security posture across global organizations.
- Developed **automation frameworks** using **PowerShell and Power Automate** that reduced manual operations by 40%, streamlining identity provisioning, license management, compliance reporting, and incident response workflows.
- Served as technical analyst for **Govern365** data governance platform, conducting **PoCs, production deployments, and client training** to automate compliance reporting and data classification across Microsoft 365 environments.

PROJECTS

Threat Synthesis (Multi-LLM Security Benchmark) | *Python, LiteLLM, Vertex AI, Streamlit* Sept 2025 – Dec 2025

- Built an evaluation framework benchmarking LLMs (Gemini, GPT, Llama) on 8 cybersecurity analysis tasks including MITRE ATT&CK mapping, IOC extraction, and CVSS scoring against ground truth datasets.
- Engineered a multi-stage pipeline with parallel inference, response normalization (majority voting, score averaging), and task-specific metrics (F1, MAE, Jaccard similarity) with Streamlit dashboard for visualization.

Financial Management Hub (Serverless AWS App) | *AWS, Terraform, Docker, CI/CD*

Feb 2025 – Apr 2025

- Developed a serverless financial tracking app using AWS Amplify, Lambda, and DynamoDB, integrated with Plaid/OpenAI APIs for automated expense insights, achieving 99.99% availability.
- Implemented auto-scaling infrastructure and CI/CD pipelines with Terraform, Docker, and GitHub Actions

Travel Itinerary Planner with Google ADK Agents | *Google ADK, Vertex AI, BigQuery*

May 2025 – Jun 2025

- Built a multi-agent planning system leveraging Google ADK; agents ranked attractions, ingested preferences, and generated optimized day-by-day travel itineraries.
- Applied agent orchestration, serverless architecture, and event-driven design to deliver a cost-efficient, scalable system.

EDUCATION

MS Data Science

Aug 2023 – Dec 2025

Rochester Institute of Technology

Rochester, NY

Bachelor of Computer Applications

Jul 2017 – Jun 2020

Amity University

Noida, India

PUBLICATIONS

“Survey Perspective: The Role of Explainable AI in Threat Intelligence.”

Nidhi Rastogi, Devang Dhanuka, *et al.* - Survey study on integrating XAI into SOC workflows.

“Too Much to Trust? Measuring the Security and Cognitive Impacts of Explainability in AI-Driven SOCs.”

Nidhi Rastogi, Devang Dhanuka, *et al.* - Evaluates explainability methods' effect on analyst trust and efficiency.

“Impact of LLMs on Team Collaboration in Software Development.” Devang Dhanuka.

“PROVEX: Enhancing SOC Analyst Trust with Explainable Provenance-Based IDS.”

Devang Dhanuka, Nidhi Rastogi - XAI framework for temporal graph-based IDS with post-hoc explanations.

TECHNICAL SKILLS

Programming & Scripting: Python, Java, PowerShell, React.js

ML & AI Frameworks: PyTorch, TensorFlow, LangGraph, Hugging Face, PyG, vLLM, FastAPI

Cloud & MLOps: AWS, GCP, Azure, Docker, Kubernetes (K8s), CI/CD, Terraform

Analytics & Visualization: Power BI, Streamlit, Pandas, SQL