Devang Dhanuka

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EXPERIENCE

Research Assistant – Explainable AI (XAI) for Cybersecurity

Oct 2024 - Present

Rochester Institute of Technology — Advisor: Prof. Nidhi Rastogi

Rochester, NY

- Developed an explainable intrusion detection framework using Temporal Graph Neural Networks (TGNN) on DARPA Trusted Computing datasets, improving transparency of cybersecurity alerts.
- Benchmarked explainability methods (GNNExplainer, PGExplainer), analyzing fidelity, stability, and accuracy, and integrated results into interactive SOC dashboards (Streamlit) to enhance analyst decision-making.

Senior Engineer - Cloud Infrastructure & Security

Aug 2020 - Jun 2023

Netwoven Inc.

Kolkata, India

- Managed Azure resources for deployment and cost optimization—implemented resource tagging, budgeting, and cost reports to enhance visibility, billing accuracy, and cloud spend governance.
- Led Microsoft 365 tenant-to-tenant migrations for 3,000+ users with zero downtime, and implemented enterprise-grade controls (Information Protection, DLP, Intune, Conditional Access) to safeguard sensitive data across global organizations.
- Automated key IT operations workflows using Power Automate and PowerShell to improve efficiency and reduce repetitive tasks across identity, licensing, and compliance operations.
- Supported Govern365 (data governance platform) through PoCs, customer demos, production deployments, and adoption initiatives to align compliance frameworks with customer environments.

PROJECTS

Evaluation Framework for SOC LLMs | OpenAPI, HuggingFace, AWS Bedrock, GCP Vertex AI Jul 2025 - Present

- Built a vendor-agnostic benchmark ingesting multi-source logs, normalizing to ECS/STIX, mapping to MITRE ATT&CK, and evaluating proactive (log-driven) and reactive (alert-driven) SOC workflows across models (Anthropic, OpenAI, Gemini, LLaMA, DeepSeek, Qwen).
- Generated reproducible scores for detection/triage, IOC extraction, hallucination accuracy, ATT&CK coverage, with dashboards reporting latency, cost, and explainability.

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, BiqQuery 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 orchestration techniques, serverless architecture, and GCP IAM/security policies 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.

TECHNICAL SKILLS

Programming: Python, Java, SQL, PowerShell

ML/AI: PyTorch, TensorFlow, HuggingFace, XAI (LIME, SHAP, GNNExplainer)

Cloud/MLOps: AWS, GCP, Azure, Terraform, Docker, Kubernetes, CI/CD

Databases/Analytics: MySQL, PostgreSQL, NoSQL, Pandas, NumPy, PowerBI, Streamlit