

# Divya Goswami

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## EDUCATION

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### UNIVERSITY OF BIRMINGHAM

#### *Master of Science in Cybersecurity*

Birmingham, UK  
September 2023 - September 2024

Aced modules:

- Cryptography and Network Security,
- Forensics, Malware and Penetration Testing

### HERITAGE INSTITUTE OF TECHNOLOGY

#### *Bachelor of Technology in Computer Science and Engineering*

Kolkata, IN  
August 2018 - August 2022

- CGPA 8.2/10
- Aced modules:
- Year 2: Operating Systems, Cloud Security,
- Year 3: Database Management Systems and
- Year 4: Cryptography and Network Security

## PROFESSIONAL EXPERIENCE

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### ANGAD CORPORATION, WORKSPAN

#### **Site Reliability Engineer (Security)**

San Bernardino, CA  
June 2022 – Sep 2023

- Revolutionized GCP to Jira Integration and Automated Firewall Management: Transformed issue tracking and management by seamlessly integrating Google Cloud Platform with Jira.
- Improved network security by regularly implementing new automated detection and removal of open firewalls and configured Web Application Firewall on GCP to streamline TCP/IP protocols requests.
- Significantly strengthened 70% infrastructure by identifying and purging expired IAM access, ensuring a least-privilege environment. Elevated code security through the implementation of CI/CD pipelines with comprehensive SCA, SAST, and DAST report generation.
- Performed VAPT analysis on org twice and led fixes. Tested various security tools and platforms to look for new ways of security integration to regular tasks.
- Leveraged Google Security Command Center to enforce strict security practices and proactively manage threats.
- Led war rooms to track new Incident Responses and do subsequent Root Cause Analysis thereby devised Security Mitigations for the future. Revolutionized secret management, maintained SSL certificates records over DNS.

### FINZOOM INVESTMENTS ADVISORS, INDMONEY

#### **DevSecOps Intern**

India  
Mar 2022 – Jun 2022

- Established comprehensive metrics and alerts for RDS, ECS services, and Redis clusters using CLI. Created a centralized Grafana dashboard by linking CloudWatch logs through ARN policies, enhancing real-time monitoring and visibility. Crafted procedures on steps during privilege escalation attacks.
- Automated Resource Tracking and Cost Allocation: Developed a 100% automated workflow to record uncharted resources in Excel after Database Query, certifying accurate and up-to-date asset management. Implemented tag-based cost allocation, migrating cost exploration from AWS to Grafana, and set up Jenkins jobs for automatic tagging of new resources.
- Deployment and Hotfix Management: Oversaw core deployment windows, collaborated in issuing critical hotfixes, and ensured seamless daily GitOps deployments. Established deployment reliability and efficiency through rigorous monitoring and management.

### TRELL EXPERIENCES

#### **DevSecOps Intern**

India  
Sept 2021 – Mar 2022

- Enhanced GitOps Security: Implemented robust GitOps security measures, including access control and CI/CD pipeline upgrades, significantly improving the integrity and security of the deployment process.
- Fortified Docker and Kubernetes Security: Deployed Vault and Falco via Helm for efficient secret rotation, management, and event monitoring on Kubernetes clusters. Created hardened Docker images to restrict privileges for running services, creating a secure container environment.
- Streamlined System Admin, Security, and IAM Processes: Written scripts to scan for unprivileged users using sudo on servers, automated on-demand log monitoring over specified time periods using Kibana, and streamlined the exit policy for employees, enhancing overall security and administrative efficiency. Educated team on OWASP Top 10 and established scanners to weed out codes that have those vulnerabilities.

### THE LINUX FOUNDATION

#### **Open Mainframe Project Mentee**

San Francisco, CA  
Jun 2021 – Aug 2021

- Revamped Flask Application for IBM Z: Overhauled a Flask application, refactoring 70% of the code, and significantly improving both the UI and backend functionality.

- Automated Data Handling for Linux Distributions: Scripted automations to pull and format data across various Linux distributions, reducing manual effort and increasing efficiency.
- Optimized Server Configuration for CI/CD: Reduced manual server configuring and reloading by 80%, facilitating smoother integration and advancement of the CI/CD pipeline.
- Continue to research new ways of improving security and infrastructure as a OSS maintainer as the project continues to grow till today.

## CALLCHIMP, DYNOPH

### Junior DevOps Engineer

India

Dec 2020 – Feb 2021

- Server Management and Security: Expertly administered four Linux servers, overseeing application deployments on Digital Ocean to ensure seamless operations. Enhanced server security by implementing fail2ban firewalls, effectively preventing online VoIP server attacks.
- Streamlined Docker Deployment and Testing: Designed robust Dockerfiles and Docker Compose configurations, rigorously testing deployments locally on VMWare. This ensured flawless execution in production and contributed to maintaining high performance and reliability.

## OTHER

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- Technical Skills:  
**Expert in:** Python, SQL, Git, Bash, ISO 27001, SSDL/SDLC, Linux, Incident Management, Root Cause Analysis, Google Cloud Platform, Amazon Web Services, TCP/IP, GCP Security Command Centre, Docker, Kubernetes, Jenkins, Communication, Terraform, Automation and Monitoring, Yaml, json, Github/Gitlab Ansible, Risk Management, System Administration and Infrastructure Security, Network Architecture  
**Intermediate in:** Windows, WAF/WAP, Troubleshooting and Problem Solving, Mobile Operating Systems, AWS Inspector, Critical Thinking, Malware analysis - Ghidra/Static, Firewalls, Network Analysis, OWASP Top 10  
**Basic in:** NIST, GDPR standards
- Projects:  
 Reverse windows malware on Ghidra  
 Raspberry Pi (ARM arch) emulator using unicorn emulator on python  
 Bypassing CSP, File Forensics a study of how polyglot files can be taken advantage of in bypassing Content Security Policy rules for Reflected Cross Site Scripting attacks.  
 Deployment using Voice assistant driven pipeline - created using AWS Lambda  
 Laufeyson, Domain OSINT Framework capable of gathering intel on a domain or an IP.  
 Study of the GNU toolchain for InterProcess Communication(IPC) in an OS  
 Software simulation of a computer from scratch.  
 DevSecOps-Automation-Monitoring scripts that can be used for daily workflows.
- Certifications:  
**(2021)** Open Mainframe Project Mentorship Mentee, Practical Ethical Hacking, IBM Z Day Speaker Advocate  
**(2020)** LFD103: A Beginner's Guide to Linux Kernel Development, Linux Server Management and Security, Cryptography and Information Theory
- Honors and Awards:  
**(2023)** BlackHat Europe Student Scholarship  
**(2021)** IBM Z Ambassador, Grace Hopper Celebration Scholar
- Volunteering:  
**(2021 - Present)** AWS Community Builder, Open Mainframe Project Steering Committee Member & Project Maintainer  
**(2023)** University of Birmingham MSc Cybersecurity Ambassador  
**(2021)** AnitaBorg Open Source Mentor, PyconIndia Conference Co-organizer