

DEBJEET CHAKRAVORTY

+1-7029455965 dchakra8@jh.edu

Summary

Graduate student in Security Informatics at Johns Hopkins University with hands-on experience in cybersecurity, cloud security, and data engineering. Skilled in security operations, incident response, vulnerability assessment, automation, and compliance frameworks. Experienced in building secure data pipelines, implementing IAM controls, and developing AI/ML solutions for operational efficiency. Proficient in Python, Azure, AWS, and security tools including SIEM, penetration testing frameworks, and workflow automation. Passionate about applying technical expertise to solve real-world security challenges.

Education

Johns Hopkins University – Whiting School of Engineering

Baltimore, MD

Master of Science in Security Informatics

Aug 2025 – Dec 2026

- Coursework: Assured Autonomy, Network Security, Computer Intrusion Detection, Cyber Operations, Risk, and Compliance

Manipal Institute of Technology

Manipal, India

Bachelor of Technology in Electronics & Communication Engineering, Minor in Computational Intelligence

2020 – 2024

- Electives in Computer Networks, Cryptography and Intro to Cybersecurity

Experience

Data Engineer

Jul 2024 – Jun 2025

Bajaj Finserv

Pune, India

- Data Engineering: Built dedicated data pipelines for digital transactions (UPI – Unified Payments Interface), leading to an increase in monthly revenue
- AI-Powered Business Intelligence: Developed and implemented a chatbot interface using Databricks Genie for DMS, enabling senior management and their teams to access critical business insights from big data through natural language queries, directly supporting strategic decision-making processes
- Strategic Data Modeling: Developed innovative data models, leveraging customer segmentation algorithms to optimize collections and reduce non-payer costs
- Data Visualization: Designed and implemented near real-time dashboards to track collection performance of field-agents, directly supporting executive-level strategic decision-making and operational improvements
- Cost Optimization: Reduced electronic messaging (SMS) costs by 10x through the development and implementation of a segmentation and rule engine

BYTE Data Engineering Intern

Jan 2024 – Jun 2024

Bajaj Finserv

Pune, India

- Secured through Campus-Placement process for an Internship and Placement opportunity
- Designed and developed a robust API to integrate the notification system backend with recovery agent facing application, enabling seamless communication with 15,000+ debt recovery agents
- Data Migration: Successfully migrated 40+ stored procedures from Data Warehouse to Azure Data-lake, enhancing data accessibility and efficiency
- DevOps Implementation: Participated in DevTalks Hackathon, and automated scripts for transaction operations and MIS reporting, significantly boosting productivity and improving operational efficiency by 75%

Software Engineering Intern

Jul 2023 – Aug 2023

CloudFabrix

Hyderabad, India

- MLOps: Built a no-code analytics solution for a client, leveraging machine learning for a CI/CD pipeline, leading to a 13% cost reduction in IT operations

Data Analyst Intern

Dec 2022 – Jan 2023

PurpleTutor

Mumbai, India

- Data Engineering: Scrapped real-time data from Google Firebase using Python and created dashboards to understand customer behavior and answer business queries
- Machine Learning: Developed an API on AWS to implement Collaborative Filtering for providing students with personalized course recommendations

Security Operations & AIOps Projects

Security Operations Center (SOC) Lab <i>Elastic Stack, SIEM, Incident Response</i>	2025
<ul style="list-style-type: none">Built SIEM environment for security monitoring and log analysis; developed detection rules for common attack patterns and security incidentsConducted incident response simulations including threat detection, analysis, containment, and documentation following industry frameworksConfigured automated alerting and log correlation from multiple security sources for centralized monitoring	
Security Automation & Workflow Orchestration <i>Python, SOAR, APIs</i>	2025
<ul style="list-style-type: none">Developed security automation scripts for vulnerability scanning, log parsing, and threat intelligence integrationBuilt automated compliance checking tools validating system configurations against security benchmarksImplemented workflow automation for incident triage, alert enrichment, and case management	
Secure Cloud Infrastructure <i>Azure, Security Center, NSG, RBAC</i>	2025
<ul style="list-style-type: none">Built secure Azure environment with network segmentation, security groups, and least-privilege access controlsConfigured security monitoring and compliance assessment using Azure Security Center and Azure MonitorImplemented RBAC, MFA, and automated alerting for security events	
Penetration Testing & Vulnerability Assessment <i>Kali Linux, Security Tools</i>	Ongoing
<ul style="list-style-type: none">Completed hands-on security training labs including penetration testing, web application security, and security operationsPerformed vulnerability assessments and security testing using industry-standard tools and methodologiesDocumented security findings and remediation recommendations in professional assessment reports	
<h2>Technical Skills</h2> <hr/>	
AIOps & Security Operations: SIEM (Elastic Stack, Splunk), Security Monitoring, Incident Response, Alert Triage, Log Analysis, Workflow Automation, SOAR, Threat Intelligence	
AI/ML & Data Science: Python, Scikit-learn, Pandas, NumPy, Machine Learning Pipelines, MLOps, Databricks, Anomaly Detection, Data Analytics	
Cloud Platforms & Services: Azure (IAM, Security Center, Monitor, Data Lake), AWS (IAM, CloudTrail, Lambda), Cloud Security, Infrastructure as Code	
Security Tools & Assessment: Nmap, Wireshark, Burp Suite, Metasploit, Nessus, Kali Linux, Vulnerability Assessment, Penetration Testing	
Automation & Scripting: Python, Bash, PowerShell, REST APIs, Workflow Automation, CI/CD, Docker, Kubernetes	
Databases & Data Engineering: MySQL, Oracle, SQL, Azure Data Lake, ETL Pipelines, PySpark, Data Modeling	
Security Frameworks & Compliance: MITRE ATT&CK, NIST, CIS Benchmarks, Risk Assessment, Security Auditing, Policy Development	
Collaboration & Communication: Cross-functional Team Collaboration, Technical Documentation, Incident Coordination, Stakeholder Communication	
<h2>Certifications</h2> <hr/>	
CompTIA Security+ <i>Credential ID: L52TJ0LS0ERQSZ3J</i>	2024
TryHackMe Paths	In Progress
Cloud Security Certifications <i>AWS — Azure — OCI</i>	In Progress
<h2>Achievements</h2> <hr/>	
Achiever of the Year (FY24-25) <i>Bajaj Finserv</i>	2025
Top 5 Finalist (out of 98 interns) <i>DevTalk Hackathon, Bajaj Finserv</i>	2024