

EESITA SEN

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SUMMARY

Software Engineer with a strong foundation in Windows/Linux system administration, vulnerability remediation, and regulated system support from Merck's IT environment. Experienced in log analysis, patch validation, and cross-functional coordination to meet security and compliance standards. Complemented by experience designing cloud-native, event-driven systems and automating backend operations in scalable environments.

EDUCATION

MS in Information Systems, Northeastern University, Boston, MA *Sep 2023 – May 2025*

BS in Information Technology, SRM Institute of Science and Technology, India *June 2015 – May 2019*

PROFESSIONAL EXPERIENCE

Borderfree Technologies *Nov 2021 – Aug 2023*
Product Engineer *Remote*

- Built a system to integrate 5 e-commerce platforms through REST APIs, enabling unified product and order management for 50+ merchants via a cloud-native backend.
- Delivered business intelligence analytics for merchants and reduced storage costs by 40% by building data infrastructure using Lambda, DynamoDB streams, and SHA deduplication.
- Built event-driven ETL pipelines with SQS queues and audit controls, ensuring reliable transaction data consistency across business, engineering, and compliance stakeholders.
- Achieved high system reliability, reducing incident response time, by implementing CloudWatch logging, real-time Slack alerts, and automated build/deploy pipelines.

Merck Sigma-Aldrich Chemicals Pvt Ltd. *Oct 2020 – Oct 2021*
Software Development Engineer I - Life Sciences Systems *Bangalore, India*

- Managed Windows/Linux system administration and patch deployment for 10+ manufacturing applications using vulnerability scanning tools, coordinating with global infrastructure teams for security compliance
- Provided technical support through ServiceNow ticketing system by troubleshooting application issues, managing user access permissions, and maintaining 2-hour SLA response times.
- Analyzed system logs and security scan results to identify vulnerabilities, creating detailed remediation reports for management and tracking resolution status across business units.
- Collaborated with Quality Assurance and Manufacturing Operations teams to ensure security patches met regulatory validation requirements for pharmaceutical environments.

PROJECTS

AI-Based Portfolio Chatbot *Jan 2025*

- Developed an AI/ML pipeline for a RAG chatbot that ingests data from web and PDF files, embeds it using OpenAI embeddings, and stores it in Pinecone database for context-aware responses to portfolio queries.

Marketing Campaign Recommendation System *Mar 2025*

- Built a Flask API integrating GPT-4o and NLP pipelines (NLTK, scikit-learn) to generate context-aware marketing campaigns from external data (Google Places, weather, Google My Business Reviews).
- Containerized with Docker, deployed on AWS, and designed with modular ML pipelines for text analysis and feature engineering.

User Profile & Auth Microservice – AWS Infrastructure Automation *Sep 2024 - Nov 2024*

- Developed backend REST APIs using Node.js (Express) and Sequelize ORM for user signup, authentication (JWT), and profile management, which includes secure upload/update of profile pictures stored in S3.
- Integrated RDS (MySQL) for user data, triggered JWT verification and email workflows using AWS Lambda, SNS, and SendGrid, and ensured deployment scalability with EC2, Load Balancer, and Security Groups.
- Wrote unit and integration tests using Jest, automated infrastructure provisioning with Terraform, and implemented CI/CD pipelines via GitHub Actions and Packer.

SKILLS

Backend & Infrastructure: AWS, Go, Node.js, Python, ETL Pipelines, Serverless Architecture, Microservices, REST APIs, SQL, NoSQL, Git, Terraform, Docker, Bash, Unix/Linux.

System Administration & Support: Windows/Linux Administration, ServiceNow, Vulnerability Assessment, System Troubleshooting, Log Analysis, Active Directory.

Development & Analytics: JavaScript, Node.js, React, PyTorch, OpenAI API, Flask, MySQL, AWS Services, CI/CD.