Shalini Maknoor

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EDUCATION

Master of Science - Computer and Information Sciences   **Aug 2024 – May 2026**
George Mason University, Virginia, USA   *GPA: 3.45/4*
Bachelor of Technology - Computer Science Engineering   **July 2018 - July 2022**
PES University, Bengaluru, India   *CGPA: 8.31/10*

SKILLS

Languages	: **Python**, **Java**, C, SQL, HTML, JavaScript, CSS
Libraries	: React, CI/CD, Rabbit MQ, Socket.io, Bootstrap
Frameworks/Tools	: Angular, Material-UI, Spring Boot, Git, Github, TeamCity, Swagger, REST API
Software/Databases	: Postman, Chrome Dev Tools, Jira, Figma, VSCode, MySQL, Redis, Splunk, Hadoop
Cloud technologies	: GCP**,** AWS**,** Kubernetes, Docker, Ansible, Terraform

PROFESSIONAL EXPERIENCE

Software Engineer, *NatWest, Bengaluru, India*   **July 2022 – July 2024**
Single Risk Store
- Designed and implemented a framework for hosting credit, market, and operational risk classification models in book trades, enabling real-time alerts that improved risk response times by 30% and reducing false positives by 25%.
- Partnered with 15+ risk, trading, IT, and analytics professionals, aligning system functionalities with compliance standards and boosting cross-departmental efficiency by 20%.
- Managed daily ingestion of 200+ GB of trade and risk data running on GKE, streamlining load balancing to handle 3x peak volumes and reducing downtime by 30%.
- Engineered BigQuery pipelines to analyze over 1 million daily trade records and optimized SQL queries with partitioning, clustering, and caching strategies to cut execution times by 50%, lower operational costs by 20%, and deliver insights that enhanced trading strategies by 15%.

Trade Monitoring Dashboard
- Built an interactive ETL dashboard using Angular, enabling real-time monitoring and manual retry mechanisms for trade risk assessments, significantly reduced manual effort by 50%, improving operational accuracy and efficiency by 40%.

Trade and Risk Reconciliation
- Developed an automated Trade Risk Reconciliation Tool using Spring Boot (backend) and Angular (frontend) to streamline trade risk validation across environments, eliminating manual SQL-based validation and reducing human effort by 40%.
- Implemented scheduled cron jobs for daily risk validation, proactively identifying missing data, generating real-time alerts, and significantly improving accuracy and efficiency.

Risk Consultant-Research, *PricewaterhouseCoopers (PwC), Bengaluru,*   **Jan 2022 – June 2022**
- Implemented a structured Information Security Management System (ISMS) aligned with ISO 27001 standards, developing robust incident management processes and conducting regular risk assessments, resulting in a 35% reduction in security incidents.

ACADEMIC PROJECTS

Configurable and mass deployable automation tool for lab environments | *DevOps & React.js*   (Github)
- Designed and implemented a configurable automation tool using Ansible, docker to mass-deploy standardized lab environments, eliminating repetitive manual software installations by instructors and reducing setup effort by 60%, ensured seamless integration with GKE clusters for efficient deployment.

Customer Segmentation | *Python*   (Github)
- Analyzed 500K+ transactional records from a UK online retailer to uncover spending patterns and segment customers via RFM analysis and k-means clustering based on recency, frequency, and monetary value, enabling targeted marketing strategies for high-value segments.

Loan Tracker - Visualise and plan EMI's | *Spring Boot & Angular*   (Github)
- Designed a scalable, user-centric loan repayment web application utilizing Angular, emphasizing EMI cycles and pre closure loan planner. Built Spring-Boot microservices with Netflix Eureka and Oauth.

CERTIFICATES

- Cryptography and Network Security, PESU I/O
- Finalist in the Natwest Challenge 23 Hackathon – Ranked among the **Top 5 teams out of 30**
- Attained ISO 27001 certification to manage data security risks.