MUSKAN ARORA

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Education

University of Texas at Arlington (Masters of Science in Computer Science, GPA : 3.67/4)   **08/2023 − 05/2025**
The NorthCap University (Bachelors of Science in Computer Science, GPA : 3.7/4)   **07/2018 − 06/2022**

Experience

University of Texas at Arlington | *AI Platform Developer*   **08/2025 − Present**
- Built a **Streamlit** based **Python** web app integrating **NLP**(**Stanza**) and text to speech(**gTTS**) for real time grammar feedback.
- Developed comic builder, glossary generator, and exercise engine modules using dynamic **JSON** workflows for personalization.
- Analyzed usage data to measure student engagement and optimized AI feedback models, improving comprehension by **25%**.
- Automated content export workflows using **ReportLab** to generate structured PDF outputs from AI generated content.
- Collaborated with academic mentors to align AI feedback with instructional goals and accessible learning standards.

Bitxia Tech Private Limited | *Software Development Engineer*   **08/2021 − 07/2023**
- Designed 30+ KPI dashboards using **Angular** and **AG Grid**, reducing load times by **30%** and accelerating funding decisions.
- Translated business needs into **Angular** UIs by designing **Spring Boot REST APIs** integrated with **Oracle** databases.
- Built **SQL** pipelines integrating Digio, Karza, and Mifos APIs to automate KYC, credit scoring and loan approvals.
- Improved issue resolution time by **38%** by incorporating **JUnit** testing into backend service workflows.
- Reduced post release downtime by **56%** by implementing **Docker** based recovery processes and resilient deployment pipelines.
- Designed data pipelines integrating APIs and databases to ensure data quality, lineage, and real time financial reporting.
- Scaled a FinTech platform handling **$5B** in annual financing and **150K+** invoices through **load balancing** and database tuning.

Evren Global Solutions | *Software Engineer*   **06/2021 − 08/2021**
- Developed a scalable directory platform using Node.js with responsive UI and **CI/CD** integration, improving onboarding by 22%.
- Designed and launched a matrimonial platform with reporting features, achieving **98%** customer satisfaction through intuitive UX.
- Built an internal employee management system using **HTML**, **CSS**, and **Node.js** to streamline operational workflows.

Blondwaves - ILMURO | *Flutter Developer*   **05/2020 − 08/2020**
- Collaborated with UI designers to deliver cohesive mobile **UX**, increasing retention by **18%** and reducing bounce rate by **23%**.
- Developed core **Flutter** application features that improved app ratings by 30% and increased daily active users by **17%**.

Projects

Distributed Consensus Engine | *Go, Python, Node.js, gRPC Docker*
- Architected a **fault tolerant** distributed system implementing the **Raft** consensus algorithm and 2PC for data consistency.
- Developed the **log replication** module in **Go** to synchronize leader and follower state via **gRPC** AppendEntries calls.
- Implemented **leader election** logic in **Python** using randomized timeouts and heartbeat mechanisms for failure handling.
- Designed a unified raft.proto to standardize message formats across **Python**, **Go**, and **Node.js** services.
- Orchestrated a multi-node cluster using **Docker** Compose to simulate failures and validate consensus behavior.

Conference Management System | *React, Express, Node.js, REST APIs*
- Architected a full-stack system for academic paper submissions using **React** for UI and **Express** for backend APIs.
- Implemented secure **JWT** authentication and dynamic data handling to support live conferencing workflows.
- Managed the project lifecycle using **Jira** and **Waterfall** methodology to deliver core UI features on schedule.

Reward Management System | *Angular, Spring, Hibernate, MySQL*
- Developed a system with a microservice architecture, increasing task allocation efficiency by 60% with the LRU algorithm.
- Utilized Docker for containerization and deployed on **AWS**, achieving 99.9% uptime and scalable infrastructure.

Technical Skills

Languages: Java, Python, Go, JavaScript, TypeScript, SQL, HTML
Frameworks & Tools: React, NodeJS, Angular, Flutter, Spring Boot, Docker, Kubernetes, gRPC
Cloud & Data: AWS, PowerBI, Tableau, MongoDB, MySQL, Oracle
Systems & Methods: Jira, Git, CI/CD, SDLC, Agile, Microservices Architecture
AI & GenAI: NLP (Stanza), Text-to-Speech (gTTS), HITL workflows

Certifications

- Google Project Management Certification
- AWS Certified Developer - Associate