

# MOHAMMED ILYAS AHMED

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## EDUCATION

### San Jose State University, San Jose, CA

M.S., in Computer Software Engineering

Relevant Courses: Distributed Systems, Cloud and Virtualization Technologies, Software Testing

Aug 2022 – May 2024

GPA: 3.6

### Jawahar Lal Technological University, Hyderabad, India

B.Tech., in Computer Science Engineering

Relevant Courses: Database Designs, Data Structures and Algorithms, Operating Systems, System Design

Aug 2016 – Sept 2020

GPA: 3.8

## SKILLS

- **Programming Languages:** Python, JavaScript, SQL, Velocity, HTML, CSS
- **Database Technologies:** MySQL, PostgreSQL
- **Application Lifecycle Management (ALM) Tools:** Polarion, MKS/PTC Integrity, DOORS, HP ALM
- **DevOps Tools:** Docker, GitLab, Kubernetes, Git, Terraform.
- **Cloud Technologies:** Amazon Web Services, Google Cloud
- **Medical Device Regulations:** FDA CFR/QSIT, MDR, ISO 13485

## PROFESSIONAL EXPERIENCE

### Instructional Student Assistant, San Jose State University, San Jose, California

Jan 2023 – Dec 2023

- Simplified complex technical details into clear, testable requirements for the Software Quality Assurance and **Testing** course.
- Led discussions, graded materials for **Database Architecture** and **Design** principles under Dr. Jerry Gao
- Applied problem-solving skills and attention to detail in evaluating and guiding student projects and coursework.
- Developed training materials and collaborated with cross-functional teams, leveraging strong communication skills.
- Gained experience with design control tools and processes, including validation and verification, and acquired familiarity with automated test execution tools like **MF ALM**.

### Software Engineer, Tata Consultancy Services, Hyderabad, India

Jan 2021 – Jul 2022

- Engineered software solutions with Java and Python for **5+** medical device projects, adhering to FDA CFR 21 Part 820, ISO 13485, and ISO 14971 standards.
- Implemented design control processes and validation strategies, utilizing **Polarion** for managing **50+** requirements and **MF ALM** for executing over **100** automated tests.
- Developed and maintained **30+** comprehensive requirements documentation and traceability reports using **SQL** databases, facilitating successful regulatory audits and submissions.
- Created and executed **200+** automated test cases using **Python** and **JavaScript**, integrated with Jenkins **CI/CD** pipelines, reducing manual testing time by **40%** and ensuring compliance with medical device regulations.

### Jr. Software Engineer, Tata Consultancy Services, Hyderabad, India

Jul 2020 – Jan 2021

- Implemented **Python** microservices on AWS to enhance SMS support, seamlessly integrating APIs from multiple SMS vendors and boosting message delivery speed by **40%**
- Engineered **AWS** architecture scripts using AWS CloudFormation and Ansible, to ensure rapid deployment and saving **25%** on infrastructure setup time
- Optimized application testing and deployment processes by formulating CI-CD Jenkins pipelines, developing Linux shell scripts, and creating Docker scripts to build application images resulting in a 30% workload reduction
- Bolstered application security by addressing XSS, **SQL** Injection, strengthening overall security by 60%

## PROJECTS AND PUBLICATIONS

### Disease Prediction *Machine Learning, Python, Flask, PostgreSQL, Docker, Kubernetes, AWS EC2*

Feb 2024

- Developed a disease prediction application using ML algorithms (95% accuracy) and deployed it on AWS for scalable access.
- Enhanced user experience by enabling symptom-based disease predictions, doctor consultations via email and a Health GPT for health queries.

### Robot-Verse *React, JavaScript, Node.js, MongoDB, Docker, Kubernetes*

Dec 2023

- Created a web dashboard for robot rentals; supported robot management ensuring 100% booking, tracking & billing.
- Deployed the micro-services on AWS auto-scaling & load balancing group; identified key metrics for cloud monitoring.

### SAP Homogeneous Migration *Azure, AWS, CloudEndure*

Aug 2023

- Executed SAP migration from Azure to AWS using CloudEndure, ensuring data integrity & operational continuity.
- Efficiently managed CloudEndure setup and rigorous testing for a seamless transition.