

# Mohammed Ilyas Ahmed

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## WORK EXPERIENCE

**San Jose State University**, San Jose, California

Jan 2023 - Present

**Instructional Student Assistant – CMPE 287: Software Quality Assurance and Testing**

- Designed curriculum, conducted lectures, facilitated discussions, graded and delivered course materials.

**Dow Chemicals (Tata Consultancy Services)**, Hyderabad, India

Jun 2021 - Jun 2022

**Software Engineer**

- Developed "Credit Insights", a robust **CRUD** application, to support Dow Chemical's IT Governance team.
- Employed a tech stack including **React.js**, **Docker**, and **AWS EC2** Microservices to streamline credit limit tracking across various currencies.
- Designed a user-friendly customer portal that seamlessly integrates **React** front-end components with **Express.js** and **MongoDB** through **RESTful APIs**, providing clients with an organized overview of their account portfolios.
- Implemented rigorous **ES6** lint checks, resulting in a significant **90%** reduction in code violations, thus improving overall code quality. The project followed Agile methodologies and used **JIRA** for task management.
- Enforced minimum unit test coverage using **Jest**, significantly boosting the overall test coverage by an impressive **75%**. This approach ensures code robustness and reliability.

**Tata Consultancy Services**, Hyderabad, India

Feb 2021 - May 2021

**Software Engineer Intern**

- Developed UI to improve employee data management in IBM's Information Governance Catalog (IGC).
- Implemented **REST APIs**, **Angular** for frontend, and **Node.js** for backend, with **XML** and **MySQL** for data handling, improving employee management by **50%** in the banking sector.
- Designed a feature for bulk banking data import to IGC's DB2 database using **Java**, IntelliJ IDE, **Apache Camel** Framework, and REST APIs, reducing manual workload by **90%**.
- Led JUnit testing with **Mockito** and **Power Mock**, achieving 100% test coverage. Managed codebase deployment across environments using virtual machines like **VirtualBox** and **VMware**.

## PROJECTS AND PUBLICATIONS

**Health Club Management System** (MERN Stack, AWS ELB) - [GitHub](#)

Apr 2023

- Developed a Gym Management System, using **React** and **NodeJS** increasing gym operational efficiency by **20%**.
- Attained **98%** user satisfaction via real-time **AWS** and **MongoDB** analytics for data management.

**Robot Management System** (Angular, MongoDB, NodeJS, AWS EC2)- [GitHub](#)

Dec 2023

- Enhanced user engagement by **35%** via an intuitive user dashboard for robot selection and simulation.
- Reduced downtime by **20%** using **AWS CloudWatch** for real-time **AWS Robomaker** monitoring.

**Software QA Testing for Mobile Applications** (Java, Selenium & AI Testing) - [GitHub](#)

Dec 2022

- Led cross-functional team, evaluated **4** AI food recognition apps, achieved **82%** pass rate in **200** test cases.
- Documented **27** critical bugs, improving app accuracy under diverse conditions for enhanced user experience.

## SKILLS

**Programming Languages:** Python, Java, C/C++, JavaScript, Go

**Backend Technologies:** NodeJS, ExpressJS, MongoDB, Rest APIs, DOM manipulation, Apache Tomcat

**Front end and Containerization:** ReactJS, Angular, Docker, Kubernetes, AWS, Git, Shell Scripting, HTML, CSS, Bootstrap

**Big Data and Machine Learning:** Pandas, Pig, Redis, Hadoop, Hive, Spark, Elastic Search, TensorFlow

**Database:** MySQL, MongoDB, Dynamo DB, S3, PostgreSQL

## EDUCATION

**San Jose State University, San Jose, USA**

Aug 2022 – May 2024

Master of Science in Software Engineering

Current GPA: 3.5

**Jawaharlal Nehru Technological University, Hyderabad, India**

Jun-2016 – Sep 2020

Bachelor of Technology in Computer Science & Engineering

GPA: 3.9

## CERTIFICATIONS & LEADERSHIP POSITIONS

- Worked as Chief coordinator for CMPE department at ISO - SJSU - San Jose State University
- AWS Certified Cloud Practitioner - AWS