# SAI LAKSHMI MOUNIKA GANDHAM

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#### **EDUCATION**

Master of Science in Computer and Information Systems.

May 2024

University of Texas at Arlington, TX

CGPA: 3.7

[Course Work: Distributed Systems, Artificial Intelligence, Cloud Computing and BigData, Machine Learning, Design and Analysis of Algorithms,

Database Systems, Data Mining, Web Data Management, Software Engineering, Special Topics in Networking.]

**Bachelor of Technology in Computer Science and Engineering** 

August 2022

IARE. Hyderabad. India

CGPA: 3.9

[Course Work: Design Patterns, Operating Systems, Internet of Things[IoT], Compiler Designs, Data Warehousing and Data Mining, Data Structures, Computer Networks, Cloud Computing, Web Designing.]

#### **TECHNICAL SKILLS**

Programming Languages: Python, JavaScript, Java, C, C++, HTML, CSS, PHP

Frameworks & Libraries: React.js, Node.js, Express.js, Django

Databases: MongoDB, MySQL, Microsoft SQL

Tools: Git, VS Code, PyCharm, Eclipse, Jupyter Notebook

Cloud & DevOps: AWS

Other: Agile Methodologies, RESTful APIs, Web Development (Front end & Back end)

### **EXPERIENCE**

Cognizant Mar 2022-Aug 2022 Intern

- Full-Stack Web Development: Completed a 400-hour intensive training, mastering the MERN stack, and developed 5+ dynamic web applications with reusable React UI components. Designed and implemented both front-end UI logic and back-end business logic for scalable web applications. (Included skills: Web Design, Designing Front End, Back End Programming)
- · Performance Optimization and Debugging: Optimised performance for JavaScript frameworks(React.js and Node.js) web apps running in browsers and on servers, resulting in a 20% increase in application speed and efficiency. Investigated and fixed logic issues using Chrome DevTools and VS Code debuggers, enhancing overall application stability and reducing bug count by 15%. (Included skills: Developing APIs, JavaScript Frameworks)
- · APIs Development: Designed and developed 3 RESTful APIs using Node is, achieving 95% code coverage through Test-Driven Development (TDD) for an e-commerce platform with over 1,000 monthly active users.(Included skills: Web Applications, Website Architecture
- Collaboration and Agile Practices: Collaborated with cross-functional teams of 6-8 developers, identifying and resolving software defects. Utilised Agile methodologies to ensure timely delivery of high-quality software solutions. (Included skills: Project Management)

### **ACADEMIC PROJECTS**

#### Fault-Tolerant 2-Phase Distributed Commit Protocol:

- •Protocol Design and Implementation: Developed a fault-tolerant 2PC protocol using Python and socket programming. Ensured reliability in handling node crashes through advanced timeout mechanisms and recovery strategies.(Included skills: Computer Science, Back End Programming)
- •Performance Analysis: Conducted comprehensive testing under various failure scenarios, analysing recovery timelines and transactional outcomes to evaluate and optimise protocol performance.

# Cloud-Deployed Web Portal:

- •Web Application Development: Designed and deployed a dynamic web portal using React, PHP, HTML, and JavaScript. Integrated front-end UI logic and back end business logic for seamless user experience.(Included skills: Web Design, Designing Front End, Back End Programming)
- •Al Integration and Cloud Hosting: Integrated an Al chatbot for enhanced user experience and instant support. Implemented scalable cloud hosting on AWS, ensuring high performance and availability.
- •Responsive Design and Performance Optimization: Focused on creating a responsive design for seamless usability across multiple devices. Optimised the performance of the web portal for better user experience.

### Sentiment Analysis of Product Reviews:

- Machine Learning Model Development: Developed a machine learning model using Python (scikit-learn, pandas, NLTK) to classify product reviews with over 85% accuracy. Performed data preprocessing, feature extraction, and model training.(Included skills: Python, Web Applications)
- •Automation Scripts: Designed and implemented Python scripts to automate data processing and sentiment analysis, streamlining workflows and improving efficiency.

#### **CERTIFICATIONS AND PRESENTATIONS**

- Presented a technical research paper on the development and deployment of a Web Application for Fitness Pack at JNTUH

 Machine Learning by Andrew NG (Stanford University – Coursera) AWS Cloud Practitioner

September 2020 July 2024

July 2020

May 2022

• Software Engineering Virtual Experience(JPMorgan Chase Co)

## **CORE COMPETENCIES**

Technical Writing, Strategic Planning, Decision Making, Critical Thinking, Conflict Resolution, Resource Management, Ethical Judgement and Integrity, Verbal Communication Skills, Project Management Skills, Problem Solving Skills, Troubleshooting, Organisational Skills, Responsiveness.