# SAI SANDEEP MADABHUSHI

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#### **Education**

Master of Computer Science - 3.96/4.00

University of California, Irvine Irvine, CA, United States

Coursework - Computer Science, AI/ML, Database Management, Generative Models, Distributed Systems, IOT

BTech in Computer Science and Engineering - 4.00/4.00 Aug 2017- Jul 2021

Jawaharlal Nehru Technological University, Hyderabad India

#### **Experience**

## Software Engineering Intern

June 2024 - Present

Sep 2023 - Dec 2024

Engage3 Powered by Dexi

Irvine, CA, United States

- Architected a distributed data processing system using Go, Apache Kafka and Hadoop that increased the
  processing speed and reduced processing costs by 30%.
- Navigated large codebases effectively and quickly mastered new technologies, contributing to the development of high-quality software that met the needs of users and aligned with the company's rigorous standards.

## **Software Development Engineer - Apprentice**

Jan 2024 - May 2024

Amazon Web Services (AWS)

Irvine, CA, United States

- Created **user-facing features** and integrated **AWS** Lambda functions with Kinesis Media Streams, AWS Transcribe, Translate, and Polly, improving real-time audio/chat translation accuracy to **95%** and enhancing overall user experience.
- Contributed to the **open-source development** of a real-time translation **infrastructure** for **Amazon Connect**, focusing on improving accessibility and customer service for over **1000+** daily users.

## Software Engineer

Jul 2021 - Aug 2023

Tata Consultancy Services

Kolkata, West Bengal, India

- Collaborated with cross-functional teams to design and implement a **distributed microservices architecture** using **Docker** and **Kubernetes**, improving the system scalability by **50%** and reducing deployment time by **30%**.
- Developed and maintained CI/CD pipelines with automated tests to ensure bug-free code accuracy and minimized production issues by 30%.
- Owned and led cross-functional projects from conception to completion, ensuring the delivery of scalable and reliable systems while collaborating closely with engineers, designers, and product managers.
- Provided meaningful feedback during code reviews, focusing on improving code quality, enhancing system reliability, and ensuring the safe deployment of updates to production environments.
- Demonstrated **end-to-end ownership** of projects, from initial design through to deployment, ensuring all components were delivered on time and met the **highest standards of reliability**.

## **Projects**

SmartCustomer Al Chatbot (Python, OpenAl GPT-3, Flask, Docker, AWS Lambda, PostgreSQL)

- **Developed** a customer service chatbot with a focus on **reliability** and **user satisfaction**, reducing response times by **30%** and improving overall system uptime by **25%** through efficient error handling and **system design**.
- **Implemented sentiment analysis** into an Al-driven chatbot, achieving **85% accuracy** and enhancing the system's ability to provide empathetic and personalized interactions, thereby boosting **user engagement**.

Multi-Language Content Generator (JavaScript, Hugging Face Transformers, Node.js, Docker, AWS S3, DynamoDB)

- **Engineered** a content generation platform that seamlessly scaled to handle increased demand, enhancing system performance by **50%** and ensuring consistent, **reliable user experiences** across all devices.
- Designed a **responsive** and **scalable architecture** with a sleek user interface, ensuring **smooth performance** across various devices and improving the overall user experience by **30%**.

## **Skills**

Languages: Python, C, C++, Java, JavaScript, Go, Microsoft SQL, Ruby, GraphQL, TypeScript, MATLAB, C#

Mobile and Web development: FastAPI, HTML5/CSS, Next.js, Nginx, React, Vue, Angular, Express.js, Node.js, Flask

UI/UX Tools and Testing: Figma, AdobeXD, Sketch, Canva, Spline, WebGL, Cypress, Jest

Distributed and Parallel Systems: Apache Spark, Docker, Kubernetes, Apache Kafka, Hadoop, Cassandra, gRPC

System Administration and Cloud Platforms: AWS, GCP, CDK, Linux, Server Management, REST APIs, Webvitals

Software Development and Databases: Agile, CI/CD (Jenkins), Git, JIRA, .NET, MatplotLib, Snowflake, PostgreSQL

AI/ML: TensorFlow, Scikit-Learn, GPT-3, NLP Libraries (e.g., NLTK, SpaCy), Hugging Face Transformers, PyTorch