# MADHURIMA SAI VEERAMACHANENI

#### **EDUCATION**

## **Indiana University Bloomington**

Master of Science in Computer Science

TECHNICAL SKILLS

Languages: C, C++, Java, Python, JavaScript, SQL, Bash.

Software Development: AngularJS, Vue, React, NodeJS, Flask, HTML, CSS, Android, iOS, React Native.

Databases: PostgreSQL, MySQL, SQLite, MongoDB.

Tools and Frameworks: Spring Boot, Git, Jenkins, Docker, Pandas, Numpy, Scikit-learn, Matplotlib, TensorFlow, PyTorch.

Certifications: AWS Developer Associate, AWS Cloud Practitioner, IBM Java Technical Associate.

## **EXPERIENCE**

Research Assistant

### **Indiana University Bloomington**

March 2023 - May 2024

August 2022 - May 2024

Bloomington, Indiana

• Engineered advanced algorithms and scripts for data processing, filtering, and normalization, resulting in a 40% boost in efficiency and accuracy, while leading a team of five data scientists.

- Pioneered new data visualization techniques, including detailed histograms and distribution plots, that enhanced the research's impact and contributed to the recognition of a Best Research Innovation Award.
- Applied DeepLabCut and Simba to rodent behavioral studies, boosting video labeling accuracy by 45% and improving data visualization, which facilitated a 30% increase in research productivity.

Software Developer January 2021 - July 2022

Tata Consultancy Services

Hyderabad, India

- Led the agile methodology adoption, boosting productivity by 45% and cutting time-to-market by 30%.
- Directed the creation of a React portal and executed the deployment of a Spring Boot Microservices architecture, enhancing scalability and reducing response time by 35% for an e-commerce platform.
- Optimized database performance by deploying a robust data layer, resulting in a 50% reduction in database latency; automated reporting tasks, decreasing efforts by 80%.
- Developed and maintained RESTful APIs using Java and Spring Boot, ensuring seamless integration with front-end applications, which improved data consistency and user experience for over 10,000 active users.

#### Java Developer Intern

January 2019 - February 2019

Softtek Solutions

Hyderabad, India

• Deployed a Java-based application for real-time verification, reducing processing time by 40% and improving accuracy, while engineering an evolved client registry system at Oracle to enhance operational efficiency.

## **Software Engineer Intern**

June 2018 - July 2018

Aspire Vision

Hyderabad, India

- Gained valuable experience by initiating a project to modernize the Outlook platform, transitioning to a microservices architecture, and achieving a notable improvement in scalability and performance by 40%.
- Identified and resolved 60 software bugs, optimizing key functionalities and improving system efficiency by 50%.

#### **PROJECTS**

## **Development of Dynamic Messaging Platform using React**

 Orchestrated the development of a high-performance real-time messaging system with React, NodeJS, and Socket.io, optimizing message delivery speed by 40% and boosting user engagement, resulting in a 25% increase in customer satisfaction metrics.

#### Implementation of Airlines Reservation and Boarding System

• Led the design and optimization of a visually appealing UI and PHP backend, boosting retention by 50% and enhancing MySQL performance, while implementing QR codes to reduce boarding time and improve security.

#### **ACHIEVEMENTS**

- Secured the prestigious Fellowship Grant from Indiana University Bloomington to advance groundbreaking research initiatives; awarded \$10,000 grant to fund cutting-edge research projects in the field of Computer Science.
- Ranked among the top 30 performers out of 700,000 participants in the CodeVita '19 hackathon by Tata Consultancy Services, earning an \$800 award for outstanding performance.