

# MADHURIMA SAI VEERAMACHANENI

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## EDUCATION

### Indiana University

*Masters in Computer Science*

**Bloomington, IN**

*August 2022 - May 2024*

### Institute of Aeronautical Engineering

*Bachelor of Technology in Computer Science and Engineering*

**Hyderabad, India**

*August 2016 - August 2020*

## EXPERIENCE

### Software Developer

**August 2020 – August 2022**

*Tata Consultancy Services*

*Hyderabad, India*

- Guided agile methodology implementation in the Scrum Cycle, resulting in a 25% productivity boost and a 20% reduction in time-to-market. Engineered a scalable React portal for 3000+ users, enhancing the user experience.
- Implemented a cutting-edge RESTful Spring Boot Microservices architecture, seamlessly connecting client applications. This strategic move tweaked response time by 40% and bolstered system scalability.
- Architected and deployed a robust data layer leveraging Spring Data, empowering Microservices to execute efficient CRUD operations on persistent storage. This innovative approach lowered database latency, amplifying overall application performance by 50%.
- Led log debugging efforts, addressing recurring technical issues and slashing manual effort by 50%. This approach amplified system reliability and user satisfaction.
- Pioneered the development of a Report Management System utilizing HTML, CSS, JS, PHP, and MySQL. This automated reporting tasks, resulting in an impressive 80% reduction in year-over-year efforts.
- Collaborated seamlessly with the team to identify and implement CI/CD pipeline improvements using Jenkins analytics. These optimizations led to a remarkable 60% reduction in build failures, thereby enhancing system stability and efficiency.

### Software Engineer Intern

**May 2018 – July 2018**

*Microsoft*

*Hyderabad, India*

- Researched and investigated modernizing the Outlook platform by transitioning to micro services architecture, resulting in a 40 percent improvement in scalability and performance.
- Streamlined code base by diagnosing critical areas for improvement, leading to the resolution of 60 software bugs and optimization of key functionalities; upgraded system efficiency by 20%.

### Java Developer Intern

**June 2017- August 2017**

*Softtek Solutions*

*Hyderabad, India*

- Created a Java-based Web and Android App to streamline the verification process, resulting in a 40% reduction in verification time and upgraded accuracy through real-time data validation.
- Adopted a customized task routing and management system, organizing and systematizing data handling for over 10,000 daily tasks. This optimization resulted in elevated task allocation, lessened operational overhead, and raised team efficiency by 30%.

## TECHNICAL SKILLS

**Languages and Frameworks:** Python, SQL, Java, C, C++, MATLAB, UML, Shell Scripting, Linux, Angular, ReactJS, PHP, PySpark, Django, Flask, JAVA Spring, Java Hibernate.

**Web Development:** HTML, CSS, JavaScript, XML.

**Developer Tools:** PyCharms, Docker, Databricks, Jupyter Notebook, Eclipse, IntelliJ, VS Code, Android Studio.

**Technologies:** Linux, GitHub, JUnit.

**Certifications:** Google Professional Data Analyst, IBM Java Technical Associate, IBM Professional Data Analyst, Machine Learning certification by Stanford, AWS Cloud Practitioner

## PROJECTS

### Identification of Diseased plants in Hydroponic farms using Convolutional Neural Networks

- Leveraged deep convolutional networks to analyze a vast data set of leaf images, developing a highly accurate plant disease recognition model. Elevated diagnosis accuracy by 90% and decreased reclassification by 75%.
- Enacted advanced techniques including Deep learning, CNN, Neural networks and Caffe to identify and diagnose 13 different types of plant diseases from healthy leaves.
- Led integration of emoji-based website ratings in The Portal Sleuth, boosting user retention and loyalty by 25%.
- Devised an innovative approach utilizing Predictive models to distinguish plant leaves from intricate backgrounds, resulting in a 60% improvement in disease detection accuracy and facilitating timely remedial measures.

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

- Created the implementation of React and NodeJS with Socket.io, driving a 30% reduction in load time and a 20% increase in customer satisfaction scores, leading to a 15% growth in monthly active users.
- Led the design and implementation of crucial features, prioritizing the optimization of web socket-based message transmission. Resulting enhancements diminished data processing delays by 15% and boosted system scalability by 25%.
- Introduced advanced debugging techniques in codebase, reducing bug resolution time by 40% and ensuring application reliability; collaborated with cross-functional team to optimize application functionalities, resulting in a 25% increase in user engagement.
- Engineered real-time messaging infrastructure using web sockets, React, NodeJS, and Socket.io; optimized speed and reliability, resulting in a 40% decrease in message latency and a surge of 25%.

### **Implementation of Airlines Reservation and Boarding System**

- Orchestrated a 50% retention boost with a visually appealing UI. Architected PHP backend, elevating conversions by 30%. Directed MySQL for a 30% performance improvement. Implemented QR codes, reducing boarding time by 30%. Enhanced security, cutting fraud by 40% and improving on-time performance by 15%.
- Architected and optimized PHP-driven backend systems to enhance user experience, enabling seamless registration, KYC verification (PDF upload), and efficient seat reservation processes; resulting in a 30% increase in customer conversions.
- Directed the implementation of MySQL for database management, streamlining data storage and retrieval. Refined efficiency in managing passenger details, reservations, and boarding information, leading to a 30% increase in system performance.