

## JONATHAN RAJ, KATIKALA

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### SKILLS

**Programming:** Python, Java, C, JavaScript (ReactJS, Node.js, Express.js, Next.js), TypeScript

**Cloud & Data:** AWS (S3, SageMaker, EC2), CI/CD (GitHub Actions, Vercel), MongoDB, MySQL

**Web Technologies:** MERN Full Stack [HTML, CSS], Docker, Angular, jQuery, WordPress

### PROFESSIONAL EXPERIENCE

#### Hendricks Chapel Syracuse University

Syracuse, NY, USA

Volunteer Software Engineer

February 2025 — Present

- Enhanced database functionality through efficient query management techniques that resulted in data retrieval speeds increasing by 25%, ensuring robust performance and integrity for end-users accessing critical information.
- Implemented CI/CD practices that streamlined the software deployment process, resulting in a reduction of release time by 30 hours per month and analyse collaboration within the Agile team environment.

#### Multiplier AI Solutions

Hyderabad, TG, INDIA

Web Developer

May 2022 — August 2022

- Executed full-cycle deployment strategies using FileZilla that simplified file transfers for ten projects in just five hours per week instead of typical eight-hour durations previously experienced without organized methods or tools employed.
- Proposed client communication by implementing feedback loops, resulting in more efficient project management with design patterns and timely delivery of Responsive Design Website.

### PROJECTS

#### Web Application (MERN STACK)

Syracuse, NY, USA

Volunteer Software Engineer

February 2025 — Present

- Developed and deployed three scalable web applications using Bootstrap classes, React, Redux, Next.js and MongoDB; received positive feedback from 95% of users for enhanced functionality that improved engagement across platforms.
- Assessed Rest API integration processes using Fetch and Axios that decreased redundancy in data requests by 20%, optimising resource allocation and allowing developers to focus on feature enhancements rather than troubleshooting.
- Process the JSON files to Database(MongoDB Atlas)and leveraging AWS/Cloud storage for efficiency including Visual Studio.

#### Big Data Analytics

Hyderabad, TG, INDIA

Student

February 2022 — March 2022

- Devised a sophisticated analytical framework leveraging decade-spanning dataset evaluations through Data structure Visualisation methodologies for the processing over 30 years of breach data.
- Predictions directly addressed the three most frequent causes behind potential breaches within the organisation.

#### Software Testing

Utica, NY, USA

Student

August 2024 — December 2024

- Restructured software reliability evaluations through precise reproduction techniques on Oracle VMware with Ubuntu (Linux OS); increased identification rate of latent defects by over 40% while improving response times for issue remediation efforts.
- Modernised bug detection analysis through efficient reproduction of software bugs with C++ methodologies.

#### Role Management Portal

Utica, NY, USA

Student

February 2024 — March 2024

- Introduced a role-based access control responsive web development using React, Flask, PHP and MySQL, supporting five distinct user roles with 100% functional accuracy and scalable permissions.
- Engineered the backend (Flask/MySQL) to ensure reliable data management and efficient API integrations for React frontend.
- Implemented a robust, 100% accurate authentication system for employee logins, optimised for efficient web load performance.

#### AWS Deep Racer

Utica, NY, USA

Student

October 2023 — December 2023

- Created robust machine-learning frameworks with AWS services including SageMaker for data training; findings pinpointed three major causes of navigation errors leading to significant enhancements in overall operational safety.
- Leveraged AWS services, including SageMaker, S3, and DeepRacer, to train, store data, simulate, and analyse machine learning models for autonomous driving.

### EDUCATION

#### State University of New York Polytechnic Institute | Utica, NY, USA

January 2023 — December 2024

- Masters, Major - Computer Science

GPA : 3.4

#### Sri Indu College of Engineering and Technology | Hyderabad, TG, INDIA

July 2018 — April 2022

- Bachelors, Major - Computer Science and Engineering

GPA : 3.0

### CERTIFICATIONS

- Machine Learning Specialization** – Coursera (DeepLearning.AI & Stanford University)
- Full-Stack Web Development (MERN Stack)** – Verzeo
- Artificial Intelligence Workshop** – IIT Hyderabad (WAC & Kyrion Technologies Pvt. Ltd.)