# Girija Polamreddy

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### **EDUCATION**

University at Buffalo, Buffalo, NY

**GPA 3.5/4.0** 

Master of Science in Computer Science

Jan 2022 - May 2023 (exp)

**Coursework:** Analysis of Algorithms, Introduction to Machine Learning, Project Development Data Intensive Computing, Data Models and query Language, Introduction to Pattern recognition, Modern Networking Concepts.

GITAM University, Bengaluru, India

GPA 3.7/4.0

Bachelor of Technology in Electronics and Communication Engineering

Aug 2016 - May 2020.

**Coursework:** Data Structures & Algorithms, Programming with C, Object Oriented Programming through C++, Java, Operating Systems, Design and Analysis of Algorithms, Computer Networks, Computer Organization & Architecture.

### **TECHNICAL SKILLS**

**Languages**: C, C++, Java, Python

**Databases**: MySQL, MongoDB, PostgreSQL, Redis

Web Technologies: HTML5, CSS3, Bootstrap, GraphQL, Rest API, Apache Kafka, PHP

Frameworks: Node.js, React.js, Redux, Express, Passport.js

Tools: Git, Visual Studio Code, Eclipse, Postman, JIRA, JMeter, Mocha, Junit.

**Deployment**: AWS Cloud (S3, RDS, EC2, ECS ), GCP, Docker, Kubernetes

#### WORK EXPERIENCE

## Programming Assistant | Moore Archive | University at Buffalo, New York

Feb 2022 – Present

- Collaborated with a team of 6 for refactoring and optimizing the code before each build release to user acceptance testing (UAT).
- Functioned on development of login system and scholarship module using PHP framework, ran on Apache, connected to the MySQL server, and solved the frontend bugs using HTML5, CSS3, Bootstrap, and jQuery.

## Programmer Analyst | Cognizant | Bangalore, India

Dec 2020 - Jan 2022

- Collaborated with a team of 5 members and worked on the development of an E-learning web application using the MERN stack.
- Structured new functionalities and RESTful web APIs by 30% for accurate response object defining.
- Spearheaded functionalities like a user-specific dashboard, study mode, exam mode, and quiz sections. Itemized marked courses as favorites for easy accessibility and a search field for filtering the course content that responds under 300ms.
- Remodeled the application dashboard, study, and exam mode sections by resolving 15+ defects with 0 escalations and client issues.

## Software Engineer Intern | Brainovision Solutions | Hyderabad, India

Feb 2020 - Jul 2020

- Maintained and enhanced the performance of the backend by 30% of a logistics-based web application.
- Innovated new functionalities, backend in Node.js, MySQL from scratch that shows information about all the bookings.
- Accelerated Redis for caching mechanism and structured 10+ RESTful APIs by optimizing all APIs response time below 300ms.

#### **PROJECTS**

**Developers Community** | (ReactJS | NodeJS | MongoDB | MySQL | Apache Kafka | Redux | AWS | Rest API | Redis).

- Designed an interactive chat system, initiated modules like posts, bookmarks, and utilized **NGINX** to improve security by 50%.
- Deployed 3-tier distributed app with message queues as middleware and scaled to handle a load of **10,000** questions simultaneously.
- Enforced Kafka in 3 servers for request-response cycle and increased by 40% when tested with 10,000 concurrent users (JMeter).
- Expedited Redis for the faster response time (15-30%) on the pages and React.js (frontend), Node.js (backend), and Redux to manage the workflow of frontend data, databases in AWS RDS, Junit Testing, and AWS deployment.

**Ecommerce Marketplace** | (ReactJS | NodeJS | MongoDB | MySQL | Kafka | Redux | AWS | Rest API | JMeter | GraphQL).

- Developed a full-stack distributed prototype of the Etsy marketplace application scaled to handle over 10,000 users and products.
- Hosted application & database on the **AWS** cloud with **MongoDB** replica set clusters and handled fault tolerance for EC2 instances during partition of database servers and effective load balancing using **AWS ELB** & facilitated Redux for global state management.
- Devised Express, Node.js as a backend server, Kafka messaging queue for request-response cycle, Passport.js for authentication.

### Sorting Visualizer | (HTML, CSS, JavaScript)

• Visualized different sorting techniques (Bubble, Merge, Selection, Insertion) in real-time using web application.

#### CERTIFICATIONS AND ACHIEVEMENTS

- Published a paper on Automatic Street light Control System with and without IOT in IJETER | Volume 8. No. 5, May 2020.
- Awarded merit scholarship during bachelors for receiving a top 5% grade at GITAM University.
- Rewarded PRIDE connect award for delivering a critically acclaimed project and granted best Technical Associate among 80 graduate joiners at the cognizant.