Girija Reddy

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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

Coursework: Analysis of Algorithms, Machine Learning, Project Development, Database Systems, 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, Object Oriented Programming through C++, Java, Operating Systems, Design and Analysis of Algorithms, Computer Organization & Architecture.

TECHNICAL SKILLS

Languages and Frameworks: C, C++, Java, Python, Node.js, React.js, Redux, Express

Databases: MySQL, MongoDB, PostgreSQL, Redis

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

Tools: Git, Visual Studio Code, Eclipse, JIRA, JMeter, Mocha, Google Collab, STS, IntelliJ.

Deployment: AWS Cloud, GCP, Docker, Kubernetes

WORK EXPERIENCE

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

Jan 2022 – Dec 2022

- Utilized XML, HTML, CSS, and JS to enhance the website's UI, including the Notebook Viewer for easy access to Moore's works.
- Employed XSLT, XQuery, and XPath for data manipulation and organization of Marianne Moore's works.
- Applied **Python** for various backend tasks and automation and Implemented **OCR** tools for digitization of Moore's works.
- Utilized TimelineJS for creating interactive timelines on the website.

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.
- 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**.
- Debugged core dumps, memory leaks, and **multithreading** issues using GDB to resolve time-sensitive production issues.
- Remodeled the application dashboard, study, and exam mode sections by resolving 15+ defects with 0 escalations and client issues.
- Leveraged Spring Boot's security module and Actuator for a 20% boost in issue resolution speed and stronger application security using OAuth2.0 and JWT.
- Increased user experience and database efficiency by 15% by using Spring Boot's embedded **Tomcat** and Data **JPA** to reduce load times and boilerplate code.

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.
- 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.

Dancestry / Choreographic Lineage | (HTML | CSS | JavaScript | ReactJS | PHP | Python | NodeJS)

- Worked on establishing a comprehensive Dance Lineage network between dancers and choreographers.
- Implemented login mechanism through social media and an image retrieval system that utilized multiple APIs calls.
- Improved the user experience and optimized the website to be highly responsive across a range of devices and web browsers.

My Music Taste Analysis | (Python | Spotify API | Data Analysis | Visualization | Cluster Analysis)

- Scraped and cleaned data from my Spotify over 3 years to understand mood, music taste and artist preferences monthly.
- Performed cluster analysis with KMeans, Agglomerative, Affinity Propagation, BIRCH, DBSCAN, and Mini-Batch KMeans.
- Visualized patterns using calplot and radar plots and created tableau dashboards to get key insights of data.

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.