

Usha Vudatha

Stony Brook, New York (Open to Relocate)

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EDUCATION

Master of Science in Computer Science, *SUNY - Stony Brook University*; GPA: 3.8/4.0

Jan 2022 - May 2023

Bachelor of Technology in Computer Science, *Vel Tech University*; GPA: 4.0/4.0

Jul 2017 - Jun 2021

TECHNICAL SKILLS/STRENGTHS

Programming Languages: Python, Java, HTML, CSS, C, C++, Javascript, Go basics, D3.js

Databases: MySQL, GraphQL, SQL, NoSQL, PostgreSQL, Mongo DB

Tools: Azure DevOps, GCP, AWS, Docker, Kubernetes, Jira, Visual Studio, IntelliJ IDE, Git, Kafka, Jenkins (CI/CD Pipelines)

Frameworks: Spring Boot, Spring MVC, React JS, Hibernate, REST, JUnit Micro-Services Architecture

Courses: Object-Oriented Principles, Operating Systems, Design Patterns, Software Architecture, Database Systems

EXPERIENCE

Graduate Research Assistant, *Stony Brook University, Stony Brook, NY*

Jul 2023 - Present

- Developed a cloud-based **Reddit API** application that led to a substantial 40% reduction in data processing time by efficiently extracting, transforming, and loading data into a central data warehouse.
- Implemented scalable data storage on **Amazon S3** for efficient organization and tracking of diverse data sources. Realized a 50% improvement in data visualization capabilities, enabling more informed decision-making and insights into US voting patterns.

Graduate Teaching Assistant, *Stony Brook University, Stony Brook, NY*

Aug 2022 - Dec 2022

- Conducted collaborative & innovative sessions for 150 students, fostering their programming skill in **Data Structures** and Algorithms. Mentored various teams, facilitating the development of their teamwork & problem-solving skills and achieving 95% satisfaction rate
- Maintained a dedicated website with written materials and documentation, catered to both technical and non-technical audiences

Software Engineer, *Sperry Technologies, Hyderabad, IN*

Jan 2021 - Dec 2021

- Developed a comprehensive Course Information System (CIS) using **Java** and **Spring Boot**, enabling efficient management of courses, users, registrations, communication, reporting, and integration with other systems.
- Implemented Agile methodology, Improved the applications lifetime by reducing complexities, duplications and potential bugs in the code by integrating **SonarQube** for all the API's and increased the unit test coverage by 40%.
- Orchestrated **MySQL** database design, leading to 30% increase in data management efficiency, empowering admins with advanced reporting on enrollments, user activity & system metrics. Practiced test-driven development throughout the project lifecycle.
- Worked on **Swagger API** and auto-generated documentation for the **REST** calls present in all the API's which saved 30% of the time of developers and testers. Demonstrated strong version control practices using **Git**, resulting in 50% reduction in code conflicts, ensuring clean code integrity.

Software Engineer Intern, *Sperry Technologies, Hyderabad, IN*

Aug 2020 - Jan 2021

- Created a movie rating website with seamless intercommunication between 3 **microservices** (2 producers, 1 consumer). Established smooth data exchange between the 3 microservices via **REST API**, enabling users to rate and review movies.
- Devised testing automation plans for partial portion of full-stack code; identified, logged, & debugged 30+ software issues. Configured the content by implementing **Java-based** release-capable Adobe Experience Manager components, templates, and dialogs.

PROJECTS

Fashionista - E-commerce Website

- Designed and developed a full-stack Fashion E-commerce website using **Java and Spring Boot**. Optimized database queries and implemented caching mechanisms, leading to a remarkable 30% improvement in website performance and a seamless user experience
- Attained 20% fewer vulnerabilities by implementing secure user registration and login using Spring Security, concurrently enhancing user satisfaction by 25% through a responsive design across devices

Kaggle DataScience and Machine Learning Survey 📺

- Utilized **RESTful APIs** for streamlined data acquisition & responsive web dashboard, achieving a 90% reduction in manual tasks. Integrated the Frontend with interactive (UX/UI) elements to understand and retrieve different insights from data within 50ms
- Built an interactive **analytical dashboard** with advanced visualization techniques on kaggle survey data using D3.js and Flask

Asynchronous Queuing System

- Designed and implemented a **Loadable Kernel Module(LKM)** which performed various operations like deletion, encryption, decryption, concatenation, compression and decompression on multiple files in the form of a system call
- Utilized linux workqueues to implement the manipulation of the scheduled jobs with 20% more consistency. Improved the bulk operation performance by 25% over synchronous operation execution

Movie Reviews Website Using React

- Created a Movie/Tv reviews application using react, firebase. Integrated google, facebook, github accounts, phone number for login. Added favourites section and even real-time review section, where a user can post their review.

PUBLICATIONS/ACCOMPLISHMENTS

- Published *Aspect Based Sentiment Analysis Using Rule Based Approach* in 2021 First International Conference on Advances in Computing and Future Communication Technologies. The findings were disruptive model in Information Technology age
- Published *Linear Attribute Distribution and Performance Assessment for Absenteeism at Work using Machine Learning* in 2019 International Journal of Recent Technology and Engineering. The findings led to the optimization of workforce management
- Recognized as a top performer in the HackWithINFY'20 Coding Competition [Hackathon] among 167,000 participants
- Earned a \$7625 financial aid award in February 2023 for exceptional academic performance

CERTIFICATIONS

• Oracle Certified Associate, Java SE 8 Programmer*

• AWS Certified Solutions Architect - Associate (Cloud)