

Sanjana Vatsavai

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EDUCATION:

George Mason University, Fairfax, VA
Master of Science in Computer Science | **CGPA - 3.4**
GokaRaju RangaRaju Institute of Technology, Hyderabad, India
Bachelor of Technology in Computer Science | **CGPA - 3.85**

August 2022 - May 2024

July 2016 - September 2020

EXPERIENCE:

IBM | Associate System Engineer

January 2021 - June 2022

- Developed and maintained backend services using Java and the Spring Boot framework, enhancing overall application performance.
- Designed and implemented RESTful APIs to support integration with frontend applications, improving data exchange efficiency.
- Collaborated with the frontend team to create dynamic and responsive user interfaces using React, enhancing user engagement.
- Developed and maintained responsive web applications using React, ensuring seamless user experiences across desktop and mobile devices.
- Implemented complex UI components and interactive features using JavaScript, enhancing website functionality and user engagement.
- Crafted custom CSS solutions to create visually appealing and consistent designs across multiple projects, improving overall brand cohesion.
- Collaborated with UX/UI designers to translate wireframes and mockups into pixel-perfect HTML/CSS layouts, ensuring design fidelity.
- Designed and executed SQL queries for backend database validation. Ensured data integrity and consistency by performing thorough checks on database transactions and stored procedures.
- Utilized JIRA for tracking and management, documenting detailed reports and working closely with other developers for timely resolution.
- Actively engaged in sprint planning and daily stand-ups, contributing to continuous improvement by identifying and implementing best practices in development processes.

SKILLS:

Programming Languages: Java, JavaScript, Python, SQL.

Testing Tools : Selenium , Cucumber, Rest, Postman, Jenkins, Junit.

Web Technologies: HTML5, CSS, Springframework, TypeScript, Bootstrap, React JS, Node.js, HTTP.

Database/Cloud: MongoDB, MySQL, SQL, AWS (EC2, RDS, IAM, S3, Lambda).

Tools: MS Excel, MS Word, MS Power Point, Smartsheet, Sharepoint, JIRA, MYSQL, NetBeans, Code Blocks, Eclipse.

Embedded Systems: BeagleBone, GPIO Library, Sensor Integration.

Other Skills: Multitasking in C, Data structures, Algorithms, Software Engineering Practices (Agile).

PROJECTS:

Automated Code Commenting Tool - Programming Tools

- Implemented the tool using advanced Natural Language Processing (NLP) techniques and GPT Large Language Models (LLMs) in Python to automate the code commenting process, enhancing accuracy and relevance.
- Automated the generation of accurate code comments for over 10,000 lines of code, reducing manual effort and time by 70%, correcting common errors, and ensuring contextually appropriate comments.
- Interface that increased documentation efficiency by 20%, enabled comment customization for specific project needs, ensured reusability across various components, integrated seamlessly into workflows for developers.

Stock Market Website - UI/UX design

- The ExpandUrWealth stock market website uses **Express.js** for the backend, **EJS** for dynamic HTML views, and **Passport.js** for authentication. It employs session-based storage for user sessions and **NPM** for managing dependencies. Key dependencies include **Body-Parser**, **Express-Session**, **Bcrypt**, and **Dotenv**.
- Users can explore and analyze financial data for over 5,000 companies, place orders for over 1,000 stocks and 500 mutual funds, and track portfolio performance in real-time for up to 100 individual holdings, with historical data available for up to 20 years.
- The platform offers over 200 articles and tutorials on investment topics, allows users to track up to 50 favorite stocks in a watchlist, and view a history of up to 500 transactions.

Community Engagement Platform - Database systems

- Built a full-stack application using React, Next.js 14, and MongoDB.
- Created an admin interface that visualized comprehensive user engagement data, monitoring over 500 posts and 20 communities, and summarizing metrics for 100+ users.
- Enabled administrators to manage a user base of over 200 active users by implementing user registration, updating, and deletion with detailed logging, and enhanced data integrity through secure session handling.

CERTIFICATIONS:

- Microsoft Certified Azure Fundamentals, Microsoft Technology Associate, Microsoft NET Fundamentals.
- Database design and Database Programming with Oracle Academy.