Manasa Manjunath

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EDUCATION

Northeastern University, Boston, MA — *Dec 2024*
Master of Science, Computer Science — GPA - 3.9/4
Related courses: Programming Design Paradigm, Database, Algorithms, Mobile App Development, Distributed Systems

University Visvesvaraya College of Engineering, Bangalore, India — *Aug 2021*
Bachelor of Engineering, Computer Science — GPA - 3.4/4
Related courses: Object Oriented Programming, Data Structures, Operating Systems, Computer Networks, Cloud Computing

TECHNICAL SKILLS

- **Programming languages:** Java, C++, Python, C, C#, JavaScript, TypeScript HTML, CSS, Kotlin
- **Frameworks:** ASP.NET, React, Angular, Node, Express, Python Flask, Django, JUnit, JEST, Cypress, Microservices, Docker
- **Databases:** MySQL, SQL, PostgreSQL, MongoDB, Firebase, SQL Server, NoSQL
- **Web Technologies:** Bootstrap, OAuth, JWT, SOAP, REST, JSON, XML
- **Tools:** VSCode, IntelliJIDEA, Eclipse, SQL workbench, Git, GitHub, Bash

WORK EXPERIENCE

Software Engineering Intern | *Sparx Hockey, Acton, MA* | Skills: **C#, WPF, Winforms, .Net** — *June 2023 – Dec 2023*

- Designed and implemented advanced calibration and verification features for the Beam device, delivering 15% increase in measurement accuracy and data precision.
- Engineered strategic performance optimizations, resulting in improved software efficiency, 10% decrease in operational costs, and 20% reduction in calibration time.
- Elevated user experience through refinement of the user interface and overall software design, contributing to 30% increase in user satisfaction and 15% reduction in user support inquiries, emphasizing a data-driven approach to software design.

Software Engineer | *Ivanti, Bangalore* | Skills: **Angular, EXTJS, JavaScript** — *Feb 2021 - June 2022*

- Refactored 50% of the ISM product to meet accessibility standards, resulting in improved usability for all users.
- Sparkified the UI design of the product, resulting in cleaner aesthetic of the product.
- Improved the security of the application by 30% by successfully removing all the unsafe-inline eval and inline JS/CSS code.
- Migrated the code base of the application from C++ to ASP.NET and C#, resulting in improved maintainability and functionality.

PROJECTS

Stack Overflow Web App | *MongoDB, ExpressJS, ReactJS, NodeJS, Cypress, Jest, Docker - GitHub*

- Engineered a scalable and performant REST API architecture, designed for effective CRUD operations on questions, answers, optimizing database interactions and ensuring seamless user interactions even under heavy loads.
- Led security initiatives through threat modeling and CodeQL analysis, fortifying the application against vulnerabilities.
- Implemented a microservices architecture with Node.js and Docker, for scalability and maintainability.
- Orchestrated a JWT-based authentication system coupled with role-based access control, ensuring secure user sessions and tailored access permissions for different user roles, bolstering platform security, and safeguarding sensitive user data.

Order-Delivery System | *C++, Distributed Systems - GitHub*

- Implemented a replicated distributed service using a primary-backup protocol, leveraging state machine replication.
- Built multi-threaded servers and clients that share key-value store while handling node failures.
- Implemented a server recovery mechanism where failed servers are repaired by restarting them with the same configurations while ensuring data consistency by synchronizing repaired servers with live servers before rejoining them.

Stock Market Trade Simulator | Java, Java Swing, Junit, HTML, MySQL - GitHub

- Designed an application using MVC architecture and programming design paradigms like command design, visitor pattern.
- Utilized MySQL to build a robust and secure database to store trading data and user information.
- Engineered the app to make it future-proof by adhering to the SOLID principles and built a clean and well-structured code to facilitate code-reuse, minimize code duplication.