# SUMMARY

ALEKYA MADDU

**SOFTWARE DEVELOPER**

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* Highly skilled and versatile Software Developer with around **5** years of experience in full-stack web development and a strong focus on creating responsive Single Page Applications (SPAs), performing DOM manipulations, API development and integrations to deliver exceptional user experiences.
* Proficient in both front-end and back-end technologies, with expertise in **ReactJS**, **Typescript**, **Angular**, **Node.js**, **Java** and **Spring Boot**.
* Demonstrated success in designing and implementing robust HealthCare Management System, Customer onboarding platform, and building **MERN/MEAN** stack applications in different domains of Finance, Health Care and Manufacturing.
* Solid grasp of **Data structures** and **Algorithms**, as well as comprehensive understanding of software engineering concepts for effective problem-solving.
* Experienced in cloud technologies, particularly **AWS(EC2,S3,Lambda)** services, for deploying and managing applications.
* Experience using Object-Oriented, Asynchronous **JavaScript** features and have good understanding of Event loops, prototypes, and Browser Storage mechanisms(Local, Session and Cache).
* Well-versed in employing **React Hooks** and manage states at multiple levels in an application using **Redux**, **Context API,Reducers** and possesses expertise in optimizing sizable components using **memoization** and lazy loading strategies.
* Translated wireframes from **Figma** and **Zeplin** into working components with pixel perfection.
* Strong skills in version control using **Git**, unit testing with **React Testing Library**, **Jest**, **Junit** for the Backend, and adherence to **Agile** methodologies ensuring high-quality & efficient software development.
* Committed to continuous learning and staying current with emerging technologies, as evidenced by recent completion of a Masters in Computer Science and relevant certifications.

# WORK EXPERIENCE

**McKesson***,* ***KS***

## Software Developer May 2023 - Current

* Developed and maintained a HealthCare management system using **React (version 18+)** and **TypeScript** for the Frontend and utilized Java Spring Boot on the Backend, designed to improve patient care, medical record management, and communication between healthcare professionals.
* Collaborated with backend engineers to integrate **RESTful API**s using **Java Spring MVC**, enabling seamless data fetching and error handling in the React frontend, improving data retrieval performance by 40% across the healthcare management system.
* Developed appointment scheduling and calendar management features using **React Hooks** (useState, useEffect, useReducer, useMemo, useRef) and **Redux** for global state management, implemented paginated tables, modals, and infinite loaders. This reduced appointment errors by 20% and improved both user experience and application performance.
* Optimized **MySQL** schemas and implemented over 30 SQL queries, stored procedures, and triggers to manage healthcare data, improving data accuracy and reducing query response times by 25%.
* Integrated design feedback from **Figma** prototypes into the development of the healthcare management system, ensuring seamless incorporation of UI/UX designs into key features like appointment scheduling, patient dashboards, and medical record management.
* Implemented **JWT**-based authentication and **OAuth 2.0** with role-based access control, reducing unauthorized access by 25% and ensuring HIPAA compliance for secure healthcare data management.
* Implemented role-based access control for patients, doctors, and admins, developed dynamic dashboards for health records and appointments, and integrated **React Testing Library** and **JUnit** for end-to-end testing of Frontend and Backend components.
* Built real-time messaging using **WebSockets** and RESTful APIs, boosting communication efficiency by 40%. Leveraged React for a responsive UI, reducing doctor response time by 15% and improving user experience.
* Conducted stress testing and performance tuning, leading to a 30% improvement in system response times under peak load conditions, ensuring the platform reliability and performance during high-demand periods.
* Integrated detailed logging mechanisms using **Log4j** for monitoring application performance, error tracking, and conducting security audits, which enhanced the system reliability and facilitated rapid troubleshooting.
* Managed version control using **Git**, ensuring smooth collaboration across the development team through effective branching, merging strategies, and maintaining the integrity of the codebase. Utilized **JIRA** for project planning and implementation.
* Deployed healthcare management system on **AWS EC2** instances, leveraging **AWS S3** for secure data storage and **AWS Lambda** for automating updates and processing for patients and healthcare professionals, to ensure scalability, and efficient data management.
* Performed code reviews, monitored performance, and resolved issues, ensuring high uptime and user satisfaction while following

**agile** practices like daily scrums and sprint planning.

## Blue Cross Blue Shield*, KS*

**Full Stack Web Developer Jan 2023 – May 2023**

* Contributed to the development of a Health Insurance Information Portal using the **MERN** stack (MongoDB, Express.js, React.js(version17+), Node.js), focusing on creating a responsive and user-friendly interface that ensured cross-browser compatibility for a wide range of users.
* Implemented **RESTful** APIs integrated with React Components, facilitating seamless communication between the frontend and backend, supporting daily API calls using and Express.js, and utilizing **Mongoose** for efficient asynchronous data handling related to patient records and healthcare services.
* Built scalable **GraphQL** queries and mutations in a **Node.js** backend, optimizing data fetching and manipulation to enhance overall application performance leveraging relational databases and network security concepts with a focus on usability.
* Optimized data fetching via **query optimization**, API Throttling, and **pagination** techniques and reduced loading times by >2sec for multiple front-end components.
* Optimized database interactions by designing efficient data models and queries in **MongoDB**, significantly enhancing data retrieval speeds for patient information, appointment scheduling, and healthcare provider directories.
* Collaborated with senior developers to implement new features tailored to the healthcare industry, including designing and optimizing API endpoints to streamline patient data flow and enhance the overall functionality of the platform.
* Utilized **Next.js** for server-side rendering of React components, improving page load times and overall application performance, resulting in a smoother user experience for healthcare providers and patients accessing the platform.
* Conducted comprehensive unit testing using **Jest**, covering test cases for both frontend and backend components, and used Chrome and React Developer tools for effective debugging, ensuring the reliability and accuracy of healthcare-related features.
* Actively participated in version control using **Git** and engaged in agile methodologies, including sprint planning, daily standups, and task tracking through **JIRA**, to ensure the successful and timely delivery of project milestones in the healthcare domain.

## Capgemini Technology Services, *India*

**Frontend Developer & UI Designer/ Programmer Analyst Mar 2019–Dec 2021**

* Overhauled the user interface for the Corporate Customer Onboarding System, utilized Angular 10/12, HTML5, CSS3, and TypeScript, JavaScript, delivering a responsive and intuitive experience across desktop, tablet, and mobile devices, which received positive feedback from clients.
* Applied Bootstrap classes, necessary ARIA labels and attributes to the existing code, ensuring compliance with WCAG 2.1 guidelines and the ADA (American Disability Act) to make the onboarding application accessible to all users.
* Implemented data visualization using D3.js to enhance interaction with customer data and onboarding metrics.
* Integrated Angular frontend with Java and SQL-based backend systems by collaborating with the backend team to connect RESTful APIs, ensuring real-time updates to customer data and seamless processing of onboarding assessments.
* Developed a dynamic onboarding catalog in Angular, creating reusable components for onboarding steps, data verification, and document uploads, which reduced the average completion time of onboarding by 15s, leading to a more efficient workflow.
* Implemented lazy loading, code splitting, and other performance optimization techniques, which improved page load times by 2.5 seconds and overall responsiveness of the onboarding platform, leading to a 15-point increase in user satisfaction scores.
* Conducted thorough cross-browser testing, utilized Git for version control throughout the development process, and actively participated in the deployment of the Corporate Customer Onboarding System, ensuring a smooth transition for users.
* Utilized Zeplin to collaborate with UX designers**,** turning wireframes into visual and responsive web pages using Angular, HTML5, and CSS3, ensuring pixel-perfect implementation of the design.
* Applied UI/UX principles in designing Angular custom components, directives, decorators, and services, collaborating with designers to develop accessible prototypes, and added necessary REST API Endpoints to integrate the frontend with the back office systems.
* Contributed to Jenkins pipelines for automated CI/CD of pre prod environments for load testing and improving release consistency.
* Shared responsibilities for bug/crash fixes on JIRA, conducted unit testing with Jasmine and Protractor, and performed code reviews with the team, adhering to standard practices to optimize code and improve the performance of the onboarding application.
* Developed and integrated specific features using React for certain parts of the application, enhancing the overall user experience and ensuring consistency across the onboarding process.

# PROJECTS

## Appointment Booking System

Created responsive web application using HTML, CSS, JavaScript, and React using AXIOS API to fetch the data from the browser and store it in SQL database and backend is developed using Java Spring Boot. Integrated RESTful APIs with the front end to fetch the data from the MYSQL database.

## Student Enrollment Management System:

Developed a full stack web application to help students enroll for their courses using Python and Python flask framework on the backend, JavaScript, HTML and Bootstrap on the Frontend and to store data on a NoSQL database i.e., Mongo DB Collections.

# TECHNICAL SKILLS

**Frontend Languages:** JavaScript(Object-Oriented, ES6+), Typescript, HTML5, CSS3, AJAX, JSON **Frontend Frameworks/Libraries:** React (Hooks, Redux), Angular 7/10/12, Next.js, D3.js, Web pack, Babel **Backend Languages:** Java, Node.js, Express.js, RESTful APIs, GraphQL

**Backend Frameworks/Libraries:** Spring Boot, Spring MVC, Spring Security

**Testing Frameworks:** React Testing Library, Jest(Unit Testing), Enzyme, Karma, Jasmine, Protractor and Junit

**Databases & Cloud Technologies:** MongoDB, Fire Base, MySQL, AWS(EC2, S3, Lambda)

**Version Control Software:** GitHub, Git, Microsoft Azure

**Development Methodologies:** Agile, SDLC, Scrum, Jira

**Tools & Utilities:** Visual Studio Code, IntelliJ, Figma, Adobe Xd, Zeplin, Axure RP, Jenkins, Postman

# EDUCATION

## M.S in Computer Science – University of Central Missouri, Warrensburg, MO Jan 2022– May 2023 Bachelors in Electrical Engineering, Vasireddy Venkatadri Institute of Technology, Nambur, India Sep 2014 – Apr 2018