Harshith Makkapati

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Education

University of Houston, Houston, TX **MAY 2025**
Master of Computer Science – Coursework: Visualization, Big Data, Cloud Computing, Statistics, Data Structures *CGPA: 3.77*

Jawaharlal Nehru Technological University, Hyderabad, India. **AUG 2023**
Bachelor's in Computer Science – Coursework: Object Oriented Programming, Database, SQL, Algorithms *CGPA: 9.07/10*

Technical Skills

- **Programming Languages**: Python, Java, HTML, CSS, JavaScript, Linux, BASH, Junit, Mockito, Hibernate
- **Database:** Postgres, MySQL, NoSQL, MongoDB, DynamoDB, Elasticsearch, AWS Aurora, RDS
- **Frameworks**: Spring Boot, PySpark, React.js, Angular, Django, Flask, Node.js, Scikit Learn, OpenAI, NLP, LLM, GraphQL, Hibernate, Spring MVC, TypeScript
- **Cloud and Infra:** Docker, Kubernetes, Kafka, Jenkins, , AWS (EC2, S3, EKS, EB, ECS, SQS, RDS), Git, Terraform, Ansible, Maven
- **Others:** Data Modeling, Security, XSS, Load Balancing, CSRF, Postman, Software engineering practices, REST APIs, Microservices, DevOps, System Design, Agile & Scrum, CI/CD, Postman, Jira, Software Testing, Performance Tuning

Experience

Medtronic **JUL 2024 – Present**
Full Stack Developer *Houston, TX*

- Developed and implemented a Spring Boot, Node.js, and gRPC-based microservices backend to deliver real-time access to Electronic Health Records (EHRs) and patient scheduling for approximately one million monthly active users, ensuring low-latency performance and high availability in a HIPAA-compliant environment.
- Built RCM modules supporting eligibility checks, claims submission, and payment posting workflows, reducing claim rejections by 25% and shortening reimbursement cycles.
- Led development of responsive UI components with Angular and JavaScript for RCM workflows, including patient responsibility summaries and payment interfaces.
- Developed reusable modules in Java with strong Object-Oriented Analysis and Design (OOA/OOD**)** principles to support scalable and maintainable healthcare microservices.
- Implemented Redis for distributed caching and asynchronous message queueing, enabling high-throughput backend processing and supporting over 100,000 concurrent healthcare users across patient portals, and provider systems.
- Developed and optimized SQL stored procedures and queries in PostgreSQL and MySQL to process and retrieve clinical data, and billing information, reducing query response time by 50% and improving performance of analytics dashboards.
- Containerized deployment and versioning of healthcare microservices using Docker and Kubernetes on Azure for enhanced scalability, operational stability, and system resilience for mission-critical medical applications.
- Managed project dependencies and builds using Maven, streamlining the development and deployment lifecycle across multiple services.
- Designed and implemented secure authentication and authorization using JWT and OAuth2.0, role-based access to PHI in distributed systems, fully compliant with HIPAA and healthcare security best practices.
- Worked primarily on Linux environments, with testing and deployment pipelines occasionally targeting Windows-based client systems**.**

University of Houston **DEC 2023 – MAY 2024**
Research Assistant-Application Developer *Houston, TX*

- Enhanced user experience through developing dynamic web applications with Angular, React, Vue.js, and JavaScript.
- Node.js and Express were utilized in developing RESTful APIs for frontend and backend data transfer.
- Improved queries to enable PostgreSQL and MongoDB databases with 40% quicker response times.
- By leveraging secured APIs with JWT authentication and Redis cache, latency was reduced by 35%.
- Maintained version control using Git and collaborated on group projects with exposure to Subversion (SVN) for legacy system comparisons.
- Built full-stack modules with a focus on Object-Oriented Programming concepts, applied across both Python (Flask backend) and JavaScript (React components).

Infosys **MAR 2021 – AUG 2023**
Software Engineer *Hyderabad, India*

- Created reusable, responsive UI elements with React.js, JavaScript (ES6+), HTML5, Hibernate, and CSS3 to achieve a 25% decrease in development time and improve cross-device compatibility for single-page applications (SPAs).
- Enhanced rendering using React.memo, useCallback, and component lifecycle management that reduced load times by 30% and improved user interaction for high-traffic web applications.
- Assisted cross-functional teams like Product, UX, and Backend Engineers in delivering UI/UX solutions that meet business goals, improving customer satisfaction by 15%.
- Increased UI stability and minimized production defects by 20% through automated testing with Cypress (E2E) and Jest (unit testing) integrated into CI/CD pipelines.
- Introduced Redux for global state management, making dynamic React-based frontends more scalable and easier to test.

Certification

- AWS Certified Solutions Architect Oracle Database Programming with SQL