Sai Krishna Varakala

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EDUCATION

Binghamton University, State University of New York, Thomas J. Watson College of Engineering   **Binghamton, NY**
Master of Science in Computer Science, GPA: 3.8/4.0   *Jan 2022 - Dec 2023*
Related Coursework: Operating Systems, Computer Organization & Architecture, Design and Analysis of Algorithms,
Programming Languages, DBMS, Design Patterns, Software & Engineering Project Management, Computer Security

Chaitanya Bharathi Institute of Technology (A), Osmania University   **Hyderabad, India**
Bachelor of Engineering in Electrical and Electronics Engineering   *Aug 2015 - May 2019*

TECHNICAL SKILLS

Languages: Java SE 8, Python, C, C++, VB.NET, .NET, C#, NodeJS, JavaScript, Typescript, HTML, CSS, Bootstrap
Databases: Oracle, MySQL, MS SQL Server, PostgreSQL, NoSQL(MongoDB)
Frameworks, Libraries & Tools: Spring framework(IOC, AOP, ORM, JDBC, MVC, others), SpringBoot, Microservices, Spring Security, LDAP, Hibernate, Maven, Junit, Mockito, JSON, PMD, Angular 9, ReactJS, REST API, JQuery, SDLC, Apache NiFi, Tomcat, Kafka, GITHUB, Microsoft TFS, Bitbucket, DevOps, Agile, TDD, Scrum, Jenkins, CI/CD, Postman, Keycloak, Windows, Linux, Microsoft Office, FlexSim, PL/SQL, Azure, AWS, GCP, PowerBI, Docker, Kubernetes, Jira, MATLAB, SonarQube

PROFESSIONAL EXPERIENCE

Graduate Grader, Department of Computer Science | Binghamton   *Aug 2023 - Dec 2023*
- Assessed assignments for 150 graduate students across six distinct coursework modules, providing timely and actionable feedback to support academic excellence
- Guided students in debugging and error-checking their code, resulting in a 25% decrease in the number of coding errors

Innovation Associates (iA), Graduate Research Associate - Software Engineer | Binghamton   *May 2022 - Dec 2022*
Machine Emulator/Digital Twin project: Developed the machine emulator/digital twin application by collaborating with simulation team, resulting in a 10% decrease in development cost for NEXiA
- Integrated station-level and system-level testing into the machine emulator application, leveraging VB.NET, MS SQL Server, ReactJS, Node.js, Java, Docker, and AWS and also created test scripts to perform unit and functional testing
- Reduced testing time by 60%, ensuring efficient and accurate evaluation of small-scale and large-scale systems
- Incorporated past performance tracking using historical data and simulated error scenarios to scrutinize system performance in the digital twin application for NEXiA software testing, leading to a 40% enhancement in application stability and reliability

Infosys Limited, Systems Engineer - Software Development Engineer | Hyderabad, India   *Dec 2019 - Dec 2021*
- Achieved a 92% aggregate in the Infosys Foundation Program and was honored as "GEC Star 2020"
Infosys Database Migration (iDM) Platform: Developed a web-based database migration tool to migrate databases, resulting in a 45% increase in efficiency compared to manual migrations, improved application performance by 50% through optimizing database queries, multithreading, batch processing, caching, and fine-tuning server configurations
- Secured the application with Spring Security, Keycloak, and configured LDAP for user authentication, and also created microservice-based solutions tailored to specific business requirements, resulting in zero security breaches or incidents
- Built core REST APIs using Spring Boot framework, Hibernate, Swagger and responsive web pages using Angular 9
- Integrated different approaches in Apache NiFi to improve data migration speeds resulting in a 60% reduction in migration time for databases and also added support for complex data types like BLOB, CLOB and others
EKart Application (e-commerce website): Reviewed and refactored the EKart Application's codebase to meet business objectives. Enhanced the application by introducing a shopping cart, and additional functionalities
- Streamlined deployment process resulting in a 65% reduction of deployment time compared to manual deployment process
- Served as Automation Anchor, led the automation of deployment processes by leveraging DevOps principles
- Configured multiple Jenkins (CI/CD) pipelines for testing, building the application, generating JAR files, and deploying them on servers. This increased deployment speeds by 80% while maintaining optimal performance

PROJECT EXPERIENCE

NexTech Interviews: Comprehensive Interview Preparation Platform
- Architected a robust platform for seamless and effective technical interview preparation

Secure Online Voting System
- Engineered a secure Java-based voting system with SSL, TCP/IP and SFTP implementation, for confidential and private communication

APEX Superscalar Pipeline Simulator, Binghamton University
- Constructed an out-of-order superscalar processor simulator, optimizing instruction fetching and issuance to enhance computational efficiency

Smart Agriculture - "Best Project of the Department" for the year 2018-2019, Chaitanya Bharathi Institute of Technology
- Designed and implemented an award-winning field monitoring system ensuring timely watering aligned with moisture levels, reducing water wastage by 40% and boosting crop yields by 30%