Nikhil Alla

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Education

University of South Florida – USF   Aug 2023 - May 2025
Master of Science in Computer System Analysis
Courses: Distributed Systems, Advanced Database Management, Cloud Solutions Architecture, Data Mining, Data Visualization

Amrita Vishwa Vidyapeetham   Jul 2017 - Jun 2021
Bachelor of Technology in Computer Science & Engineering
Courses: Software Engineering, Data Structures, Design & Analysis of Algorithms, Object Oriented Programming, Operating Systems

Technical Skills

Programming Languages: C#, Java, SQL, C, Python, R, JavaScript, HTML, CSS
Frameworks/Platforms: .NET Core, ASP .Net MVC, Spring Boot, ReactJS, NodeJS, Chart.JS, ExpressJS, Flask, Maven, Bootstrap
Tools & DevOps: Git, GitLab, Power BI, Tableau, Docker, AWS (EC2, RDS), Azure App Services, Jenkins (CI/CD), SonarQube, Jira, Rally, Visual Studio, Visual Studio Code, R Studio, PyCharm, Anaconda, Kafka, Linux, Postman

Experience

Optum   Oct 2021 - Jul 2023
Software Engineer   *Hyderabad, IN*
- Led backend development of Optum's ELGS **SaaS** Application using **C#**, **TopDown CCM** and **MS SQL**, applying both functional programming and **object-oriented programming** techniques to enhance functionality, performance, and debugging capabilities.
- Architected a robust **.NET** Framework application with **Swagger API** integration, automating the cleanup of outdated PDF records and saving up to **50%** approximately **$180,000** on NAS storage purchases.
- Secured **RESTful** API integration with token authentication, HTTP TLS 1.2, and JSON parsing for efficient data retrieval.
- Enhanced entity's microservices using .Net Framework & integrated **Kafka** enabling seamless communication with existing services.
- Optimized **SQL** queries and stored procedures, boosting performance and reducing loading times by **27%** for smoother operations.
- Automated CI/CD pipeline by integrating .NET code with **GitHub**, **Jenkins** and **SonarQube** for efficient builds, artifact management, and comprehensive code quality analysis.
- Deployed several new **production servers** and distributed components to reduce load on existing servers, enhancing our system's capacity to process up to **1,000,000 JSON / XML** records per day, transforming raw data into new letter templates.
- Leveraged **SonarQube** to enhance code quality and increase code coverage to **90%** through MSTest Unit Testing.

Cognizant   Mar 2021 - Aug 2021
Programmer Analyst Trainee   *Coimbatore, IN*
- Engineered and optimized web applications with **Spring Boot framework**, leveraging its rapid backend development and **REST API** capabilities, alongside crafting a compelling user interface for optimal user experience.
- Integrated Spring Security with **JWT** for secure access and crafted dynamic, responsive UIs using **JSP** for Audit Management System.
- Containerized the app with **Docker** and set up CI/CD pipelines using **AWS CodeCommit** and **ECS Fargate**, cutting deployment time by **70%** and ensuring consistent environments.
- Engaged in **agile development practices**, contributing to **sprint planning**, daily stand-ups, and retrospectives, advancing project workflow iteratively and collaboratively.

Projects

Flavors Unleashed : A Taste Odyssey
Technologies Used   *ASP .Net MVC, JavaScript, Chart.JS, MSSQL, Redis and Azure App Services*
- Developed 'Flavours Unleashed', a sophisticated recipe book web application, utilizing ASP.NET ; integrated Python-based predictive analytics to forecast user subscriptions and incorporated Chart.JS for dynamic data visualization enhancing engagement by 30%.
- Enhanced data efficiency by implementing Redis caching and managing an MS SQL database supporting 10,000+ active users.
- Deployed the app on Azure App Services using Visual Studio, ensuring high reliability and seamless updates, resulting in a 50% improvement in user satisfaction through user-centric design and iterative testing.

Rice Leaf Disease Detection
Technologies Used   *CNN, ResNet50, TensorFlow, PWA, WebSockets, Python, Flask and Docker*
- Developed a web platform using Flask and CNN to help remote farmers identify rice diseases in real-time and gain actionable insights.
- Fine-tuned model performance by training on domain-specific rice leaf disease images, achieving a 40% accuracy improvement through iterative testing and user feedback.
- Enhanced app performance and reliability by containerizing the Flask app with Docker, achieving 99% uptime and faster responses.

Exam Scheduling Management System
Technologies Used   *React JS, Node JS, Express, MySQL, and AWS EC2*
- Created a MERN stack web interface for over 10,000 students and teachers, simplifying exam schedule access and enhancing the educational experience through intuitive UI/UX design. Ensured 24/7 system availability by deploying on AWS, reducing administrative workload and facilitating easy exam date checks.

Certifications & Extracurricular

- Earned **Java** certification from Eduonix (Q3 2020) and advanced **Web Design** Tech expertise with **JavaScript, HTML5, CSS3 and database design** courses on Udemy (Q1 2021)
- Managed **ANOKHA** Tech Fest registration, coordinated logistics, facilities, and security; led department's **Kabaddi** team to championship; enhanced community hygiene and waste management as a **volunteer**