

# Nishith Vadlamudi

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## EDUCATION

### George Mason University

Fairfax, VA

*Master of Science in Computer Science*

*Aug. 2022 – May 2024*

- Relevant Courses: Application Data Mining, Analysis of Algorithms, Software Model and Architecture Design, Secure Software Design and Programming, Software Engineering for WWW, Embedded systems, Machine Learning.

## EXPERIENCE

### Software Engineer

June 2021 – July 2022

*ValueMomentum*

*Hyderabad, TS*

- Collaborated with cross-disciplinary teams to design and develop innovative software solutions, enhancing system functionality and user experience.
- Spearheaded the development of a streamlined Workforce Analytics Platform, achieving a 50% reduction in report generation time by implementing advanced UI filters and optimizing database queries.
- Orchestrated a large-scale Data Migration project, integrating MS SQL with JDBC drivers, leading to a seamless transfer of over 10,000 files from client's RDP.
- Designed and implemented scalable, fault-tolerant solutions using microservices architecture, enhancing modular development with role-based access control and personalized content features, including scaling applications for mobile platforms.
- Enhanced system Integration and Security, optimizing query processes for a 40% increase in database efficiency and implementing robust security protocols for data protection, including JWT-based authentication.
- Developed optimization algorithms and automated processes using Java SMTP, enhancing resource allocation and communication efficiency by 50%.
- Implemented an automation for record closure using Cron expressions, reducing manual effort by 80% and ensuring accurate data management.
- Executed comprehensive unit tests across all modules using Junit to ensure system reliability, and integrated SonarQube for continuous code quality monitoring.
- Leveraged Docker, Kubernetes, and Azure DevOps for efficient CI/CD pipelines and application deployment, enhancing scalability, and environment consistency across development, staging, and production pipelines.

## PROJECTS

### Othello Gaming Application | *Angular, Spring Boot, Git, Docker*

April 2023 – May 2023

- Architected and led a comprehensive Othello gaming application, employing microservices architecture to modularize game functionality and emphasizing precision move validation with a remarkable 99% accuracy rate.
- Designed an intuitive, user-friendly interface using Angular and Spring Boot, significantly enhancing user engagement and experience, including accessibility features and ensuring scalability for mobile platforms.
- Pioneered the integration of StompJS and Socket.io, enabling real-time game state synchronization and ensuring smooth, instantaneous updates during gameplay.
- Conducted unit testing with Jasmine and Karma, achieving an impressive 95% code coverage for a reliable and robust codebase.
- Engineered RESTful APIs with Java Spring Boot, showcasing the ability to handle over 1,000 API calls per day, ensuring high-performance functionality.
- Developed JWT-based authentication and OTP services to fortify secure and reliable user access to the gaming application.
- Utilized Spring Data JPA and MySQL for scalable and efficient data storage solutions, ensuring optimal performance.
- Enhanced application interactivity with WebSocket protocols, enabling real-time server-client communication, while actively participating in collaborative development on GitHub, contributing to over 50 commits and reviewing 20+ pull requests.

### Concrete Compressive Strength Analysis | *NumPy, Pandas, Scikit-learn, Keras, TensorFlow*

March 2021 – May 2021

- Applied advanced machine learning techniques, including Random Forest and Gradient Boost Regressors, to accurately predict concrete compressive strength, enhancing industry predictive analytics.
- Executed error rate analysis to identify the most effective algorithm for accurate prediction of compressive strength.

### Rice Leaf Disease Prediction with CNN: | *Tkinter, Keras, Numpy*

March 2020 – May 2020

- Applied efficient 2D and 3D image recognition techniques to enhance disease detection accuracy.
- Designed the CNN architecture based on VGG-16, demonstrating expertise in deep learning and image classification.

## TECHNICAL SKILLS

**Programming Languages:** Java, Python, C, PL/SQL, C++, GoLang

**Frameworks:** Spring, Spring Boot, Angular, Hibernate, Liferay, Tableau (Certified)

**Developer Tools:** Git, J2EE, SOAP, REST, Junit, Maven, Gradle, OAuth, Visual Studio Code

**Database Management:** MySQL, Oracle, MSSQL Server, MongoDB

**Development Technologies:** AWS (Lambda, SNS, DynamoDB), Microsoft Azure, Kubernetes, WebLogic, Docker, Apache Kafka

**Web Technologies:** HTML, CSS, JavaScript, AJAX, TypeScript, JSP, jQuery

**Operating Systems:** Linux, Windows, MacOS, Unix

**Search Technologies:** Elasticsearch, Kibana

**Project Management Tools:** Azure Boards, GitLab, Jira, Agile development practices