

## TANVIK REDDY KOTHA

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### SUMMARY

Full Stack Developer with hands-on experience building scalable web and mobile applications using Java, Spring Boot, React.js, React Native, REST APIs, and AWS. Proficient in database design (MySQL, MongoDB), cloud deployment, CI/CD, and secure authentication (JWT, OAuth2). Developed AI-powered health apps and enterprise dashboards, driving user-centric solutions by integrating AI into full stack development.

### EDUCATION

#### Master of Science in Computer Science

University of South Florida, Tampa, FL | May 2025

Relevant Coursework: Database Management Systems, Network Security, Operating Systems, Algorithms, Affective Computing, Smart & Connected Health

#### Bachelor of Engineering in Computer Science and Engineering

CVR College of Engineering – JNTUH, Hyderabad, India | May 2023

Relevant Coursework: Data Structures, Java Programming, Web Technologies, Cloud Computing, Artificial Intelligence, Cyber Security, Blockchain

### PROJECTS

#### Personalized Food Rx – AI-Powered Health Chatbot App

Flutter, Dialogflow CX, MongoDB Atlas, OAuth2

- Designed and deployed a cross-platform mobile app for underserved communities, delivering real-time AI-driven nutrition education through Dialogflow CX.
- Built an intuitive chatbot interface in Flutter and implemented secure, token-based API integration using OAuth2, improving response reliability by 40%.
- Architected a modular system enabling scalable future additions like recipe recommendations and food inventory tracking.
- Managed structured health data with MongoDB Atlas, enabling personalized content delivery based on medical conditions and user preferences.
- Published at IEEE SMARTCOMP 2025. [DOI: 10.1109/SMARTCOMP65954.2025.00080]

#### Art Gallery Store – Full-Stack MERN E-Commerce Platform

React.js, Node.js, Express.js, MongoDB, JWT, Mongoose, REST APIs

- Architected a secure Node.js/Express RESTful API for full CRUD operations on art listings, defining data models and business logic with Mongoose.
- Implemented end-to-end security using JWT for stateless authentication (with bcrypt hashing) and granular, owner-based authorization to restrict data modification rights to the content creator.
- Developed a dynamic React UI that mirrors backend authorization rules by conditionally rendering action controls based on user ownership, ensuring a secure and intuitive user experience.

#### FinDash – React Finance Dashboard

React.js, Syncfusion UI, Tailwind CSS, Context API, React Router

- Developed a dynamic and responsive dashboard for personal finance management, integrating 5+ Syncfusion components for complex data visualization including charts, grids, and a calendar.
- Architected a global state management solution using React Context API to manage UI states, effectively eliminating prop drilling and improving component decoupling.
- Implemented security best practices by storing the Syncfusion API key as an environment variable, preventing secret exposure in the public GitHub repository.

#### PawPal API – Secure Pet Adoption Backend

Java, Spring Boot, Spring Security, JWT, MySQL, H2, REST APIs

- Architected and developed a secure RESTful API for a pet adoption platform, managing pet listings, user authentication, and adoption workflows from end-to-end.
- Secured all endpoints using Spring Security and JWT, implementing Role-Based Access Control (RBAC) to differentiate between Adopter (read/request) and Admin (full CRUD) privileges.
- Structured the application with a clean, layered architecture (Controller, Service, Repository) to ensure high maintainability, scalability, and testability.

### PUBLICATIONS

**Tanvik Reddy Kotha**, Jay Hiteshkumar Jariwala, Anika Anjum, Hannah M. Thomas, Jennifer Bleck, Rita DeBate, John Michael Templeton.

*MyFoodRx: Design of a Personalized Food-as-Medicine Application to Promote Food Security and Chronic Disease Management.*

**IEEE International Conference on Smart Computing (SMARTCOMP), 2025**

**DOI: 10.1109/SMARTCOMP65954.2025.00080**

### CERTIFICATIONS

- Oracle Certified Professional: Java SE 17 Developer – Oracle
- Foundations of Databases for Developers – Oracle
- The Complete Full Stack Web Development Bootcamp – Udemy
- React Certification - Scrimba
- Software Engineering Job Simulation – JP Morgan Chase (Forage)
- AWS Solutions Architect Simulation – AWS (Forage)
- AI Fundamentals – IBM

### SKILLS

- Languages:** Java, JavaScript, SQL, Dart
- Frontend:** React.js, React Native, Flutter, Tailwind CSS, SCSS, Bootstrap, Syncfusion UI
- Backend:** Spring Boot, Node.js, Express.js, RESTful APIs
- Databases:** MySQL, Postgres, MongoDB (Atlas), SQL Server, Firebase Realtime DB
- Auth & Security:** Spring Security, JWT, OAuth2, Role-Based Access Control (RBAC)
- Cloud & DevOps:** AWS (EC2, S3, Lambda), CI/CD, Jenkins, GitHub Actions, API Gateway
- Developer Tools:** Git, IntelliJ, VS Code, Postman, Jira, Confluence
- Testing & Practices:** JUnit, Test-Driven Development (TDD), Agile/Scrum