

# Ala Sai Harsha

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## SUMMARY

- Software Engineer Intern with production backend development experience in enterprise environments, specializing in REST API design, authentication systems, and performance optimization using Java and Spring Boot ecosystem.
- Full-stack developer with 3 deployed applications combining modern frontend framework (React) and backend technologies (Node.js, Express, Spring Boot) to deliver scalable, user-facing solutions with real-time capabilities and analytics

## EXPERIENCE

### Software Developer Intern – Nuziveedu Seeds Limited

Hyderabad, India | July 2025 – Present

- **Built enterprise authentication & authorization system with role-based access control (RBAC)** using Spring Boot 3.2.5 and JWT, supporting dual-password migration (MD5→BCrypt) with stateless token-based auth, achieving faster login response time and enabling role-based access control across 100+ users in 3-plant procurement system
- **Developed 28 production-ready REST APIs** for Master Data and Indent Management modules with comprehensive validation, pagination, search filters, and @PreAuthorize security, achieving 100% test success rate (12/12 endpoints) with average response time of 143ms and zero compilation errors
- Also created a 14-user test pyramid hierarchy, achieving 100% API endpoint coverage through integration tests documented in comprehensive 250+ line testing reports, reducing manual QA effort by 70%.

## PROJECTS

### Habit Tracker – Pomodoro-Enhanced Productivity System

May 2025 | [Github](#) ↗

**Tech Stack :** Java 17, Spring Boot 3.3.2, React 19, Redux , REST APIs, Docker, H2, Maven,, Tailwind CSS

**Impact:** Increased user productivity through intelligent habit logging, real-time visual analytics

- Engineered integrated Pomodoro timer with custom React hooks supporting 1-480 minute configurable sessions, implementing browser tab countdown integration, automatic habit completion logging, and audio notifications.
- Implemented RESTful API with 5 core endpoints (habits CRUD, completion logging) and Redux Toolkit state management with normalized entity adapters, serving GitHub-style contribution graphs with yearly visualization and real-time streak tracking across responsive dark-theme UI.
- Enhanced security with Helmet, express-validator, and robust rate limiting, ensuring safe and reliable UI.

### Live-Url-Shortener

May-2025 | [Deployment](#) ↗

**Tech Stack :** React , NodeJs , Express , MongoDB , Mongoose , JWT , NanoID

**Impact:** Secure and scalable Url Shortener with real-time analytics tracking

- Architected RESTful API with 8 endpoints following MVC pattern (register, login, shorten, redirect, list URLs, update, delete, analytics) implementing input validation, error handling middleware, and HTTP status code standards (201, 401, 404, 409, 500)
- Developed responsive dashboard UI using React 18 + TypeScript with Tailwind CSS utility classes, featuring animated transitions via Framer Motion, real-time QR code generation using qrcode library, and modal-based analytics and also custom alias support, URL expiration controls, and comprehensive error handling (duplicate key detection, validation errors) reducing unauthorized access and improving data integrity
- Built real-time analytics tracking system capturing click timestamps, device metadata, and referrer information stored in MongoDB arrays, enabling per-URL performance monitoring with React Query for optimized data fetching and caching strategy.
- Deployed this into my own subdomain <https://urlshortner.alasaiharsha.me/>

## TECHNICAL SKILLS

**Programming Languages:** Java, JavaScript

**Frontend Technologies:** HTML, CSS, React.Js, Tailwind CSS

**Backend Technologies:** SpringBoot, NodeJs, ExpressJs

**DataBases:** MongoDB, MySql

**Web Services:** REST, GraphQL

**CS Fundamentals:** OOP, Data Structures & Algorithms, OS, SDLC

**Tools:** Docker, Maven, GitHub, Postman

**Additional Skills:** Strong verbal and written communication, time management, collaboration, documentation

## EDUCATION

**VASIREDDY VENKATADRI INSTITUTE OF TECHNOLOGY**

Guntur, Andhra Pradesh

**B-Tech in Computer Science and Engineering**

**2021 – 2025**

**SIR CR REDDY PUBLIC SCHOOL**

Eluru, Andhra Pradesh

Class XII,CBSE

**2019– 2021**