Nandaka Vinay Kunapareddy

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SUMMARY

Backend developer with 2+ years of experience designing and managing scalable, reusable APIs for high-traffic e-commerce platforms. Proficient in IBM API Connect, RESTful architecture, and microservices. Skilled at building secure, reliable backend systems that support seamless integration and high-volume transaction processing.

EDUCATION

Jawaharlal Nehru Technological University — **Hyderabad, India**
Bachelor of Technology in Computer Science and Engineering — August 2019 - July 2023

WORK EXPERIENCE

Tata Consultancy Services — **Hyderabad, India**
Systems Engineer — November 2023 - Present

- Built and managed secure, high-performance APIs for a major e-commerce platform using **IBM API Connect**, handling over **1 million API calls** per month across key services like product catalog, orders, and user memberships.
- Contributed to the migration of monolithic systems to **microservices architecture**, resulting in an average **35% reduction in latency** and improved scalability under peak load.
- **Developed and optimized JavaScript gateway scripts** to control request and response behavior, transform payloads, and implement security rules within the API gateway.
- Defined and maintained OpenAPI specifications and integrated OAuth 2.0, rate limiting, and client authentication to deliver **standardized and secure APIs** for internal and partner-facing services.
- Collaborated within a cross-functional Agile team to deliver and refine backend API solutions through **weekly sprints**, contributing to planning, issue resolution, and continuous improvement efforts.

TECHNICAL SKILLS

Languages: Java, JavaScript, Python

Cloud and DevOps: AWS (Lambda, API Gateway, S3, DynamoDB, CloudFormation), CI/CD (GitHub Actions), Docker, Kubernetes

Frontend: React.js, CSS, HTML.

Databases: MySQL, MongoDB, Oracle SQL, PostgreSQL

Tools: GitHub, Android Studio, Postman, Linux

ACADEMIC PROJECTS

Prediction of residential power energy consumption

- Engineered a predictive model for residential power consumption using **recurrent neural networks (RNNs)**, showcasing effective capture of temporal dependencies.
- Benchmarked RNNs with decision tree and random forest, highlighting superior performance in accuracy and efficiency.
- Demonstrated the potential of RNNs in **optimizing energy consumption forecasting**, offering insights for residential power management systems.

Habistry – Master Your Habits

- Developed a full-stack habit tracker with **10+ RESTful API endpoints**, enabling users to create, update, and track daily habits.
- Architected a layered Spring Boot backend with validation and exception handling, reducing API errors observed during testing by **25%.**
- Integrated JPA/Hibernate with PostgreSQL, improving data retrieval efficiency and ensuring consistent persistence across modules.
- Built a responsive React interface using Tailwind CSS, improving user engagement, and boosting page load speeds by 20% through refined rendering.

Facial Recognition-Based Attendance System [Python, OpenCV]

- Implemented facial registration and detection logic, linked with a database for real-time student verification.
- Reduced average attendance marking time by **70%** compared to traditional methods during prototype testing.
- Streamlined backend image-processing pipeline, reducing processing time per student by **1.5 seconds** and improving reliability to **98%** during tests.
- Enabled real-time database synchronization to log attendance, handling input from 100+ facial IDs simultaneously.

CERTIFICATIONS

- Career Essentials in GitHub Professional by GitHub
- Cisco Network Academy's Cybersecurity Essentials