MANOJ K T

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PROFILE SUMMARY

- Results-oriented Software Engineer with over 1.5 years of experience specializing in Java backend development. Adept at designing and developing scalable, secure, and high-performance backend systems using Java, Spring Boot, Hibernate, and MySQL. Proficient in creating RESTful APIs for seamless integration between client applications and backend systems.
- Experienced in working with microservices architecture, optimizing backend systems for performance and scalability, and ensuring compliance with industry best practices. Strong ability to handle the complete software development lifecycle, from requirement gathering to deployment and maintenance.
- Solid knowledge of database management, including expertise in SQL query optimization and efficient data handling using Hibernate ORM. Skilled in integrating various backend components to enhance system reliability and functionality.
- Hands-on experience with build tools like Maven/Gradle, version control systems like Git, and API testing tools like Postman. Familiar with Agile methodologies.
- A motivated team player with strong problem-solving skills, capable of independently managing tasks and collaborating with cross-functional teams in fast-paced environments. Committed to delivering high-quality software solutions that meet both technical and business objectives.

CORE COMPETENCIES

- Java 8+
- MySQL, SQL sever
- Postman for API Testing
- Rest API development
- IntelliJ IDEA
- Agile methodologies
- Spring Boot, Hibernate
- GIT for version control

WORK EXPERIENCE

Junior Software Engineer | OSS Technologies Pvt Ltd, Bengaluru, India | *May 2022 – Aug 2023*

- **Backend Development:** Designed and developed core modules for enterprise applications using Java and Spring Boot, focusing on scalability and performance.
- **API Development:** Built secure RESTful APIs for payment processing, transaction management and customer data integration, leveraging JWT for authentication and AES encryption for security.
- **Database Optimization:** Improved query performance by 30% for a retail analytics platform through efficient indexing and Hibernate caching strategies.
- **Spring Data JPA Implementation:** Developed and optimized database operations using Spring Data JPA for an enterprise inventory management system, implementing custom repository methods and streamlining CRUD operations.
- **Exception Handling:** Developed custom exception-handling mechanisms ensuring system reliability. Worked in Agile teams, coordinating with UI/UX designers and cross-functional stakeholders to deliver high-quality backend solutions.

PROJECTS

Personal Portfolio Website | Website Link | GitHub Link

- Created and deployed a responsive personal portfolio website using GitHub Pages to showcase professional skills and projects.
- Designed a clean and modern user interface with engaging layouts and smooth animations.
- Optimized for mobile and desktop devices, ensuring accessibility and cross-browser compatibility.
- Highlighted technical expertise, work experience, and project contributions in a well-structured and visually appealing format.
- Technologies used : HTML, CSS, JavaScript, Responsive Design.

E-Commerce Backend Development | GitHub Link

- Developed a scalable backend system for an e-commerce platform using Java, Spring Boot, and SQL Server.
- Implemented features such as product catalog management, user authentication, and order processing workflows.
- Utilized Hibernate ORM for efficient database interactions and ensured secure API communication with JWT-based authentication.
- Conducted performance testing using Postman, ensuring the APIs handled high concurrent user loads without downtime.
- Followed best practices in modular development, version control using Git, and unit testing to maintain a clean codebase.

Main Project (Master's): Enegry Usage Dashboard for Smart Homes | GitHub Link

- Developed a real-time dashboard to track and reduce electricity consumption in smart homes using Flask, Python and Chart.js..
- Built RESTful APIs for data collection and processing, enabling users to view energy consumption trends and set alerts for overconsumption.
- Integrated real-time data pipelines to process sensor data efficiently and displayed interactive visualizations for better user insights.
- Designed and implemented robust test cases, ensuring new features met stringent reliability and performance standards.
- Managed backend tasks, including database operations, authentication mechanisms, and API documentation for seamless integration.
- Technologies Used: Flask, Python, JavaScript, HTML/CSS, VS Code, GitHub.

Main Project (Bachelor's): Pedestrain Robotic Guide Using Raspberry Pi

- Developed an interactive route guidance system for visitors at ATME College of Engineering campus, providing accurate route maps and voice commands to help visitors navigate efficiently.
- Led a team of 4, overseeing project planning, task allocation, and contributing to develop Python code to ensure smooth system functionality and timely delivery.
- Implemented visitor record-keeping and route display using a GUI built with TKinter, running on Raspberry Pi OS.
- Utilized tools like GitHub for collaboration, Trello for project tracking, and VS Code as the development environment.
- Technology Stack: Python, TKinter, Raspberry Pi OS, GitHub.

Mini Project (Bachelor's): Multifunctional Robot

- Developed a multifunctional robot using Arduino UNO, designed for tasks such as object detection, line following, and automated object handling.
- Integrated ultrasonic and infrared sensors for obstacle detection and path navigation, enabling the robot to perform efficiently in dynamic environments.
- Programmed the robot with custom algorithms to carry out autonomous tasks, including object picking and movement control, enhancing its versatility.
- Conducted rigorous testing to ensure the robot's hardware and software components worked seamlessly together, meeting performance and reliability standards.
- Technologies Used: Arduino UNO, C/C++, Ultrasonic Sensors, Infrared Sensors, Motors, GitHub.

EDUCATION

- **MSc - Electronic & Computer Technology (Internet of Things)** | Dublin City University, Glasnevin, Dublin | (2023-2024)
- **B.E - Electronics and Communication Engineering** | ATME college of Engineering, Mysuru , India | (2019-2023)

INTERESTS

- **Professional Video Creator :** Experienced in editing high quality videos and also making creative content for social media handel such as Instagram and YouTube.
- **Motorbike Enthusiast :** Passionate about motorbikes and frequently engaging in Road trips and also making motorbike content.