

UTSAV RAI

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Education

Jaypee University of Engineering and Technology

Bachelor of Technology in Computer Science and Engineering(GPA: 8.6/10)

Aug. 2022 - Present

Guna, Madhya Pradesh

Projects

Flight-Service | Node.js, Sequelize ORM, RabbitMQ, Redis, MySQL, Docker, Kubernetes

January 2025

- Developed a scalable microservices-based backend system for flight management, enabling efficient handling of flight booking, pricing, and user authentication for 500+ concurrent users, improving response time by 20%.
- Implemented RESTful APIs using Node.js and Express.js, with Sequelize ORM for streamlined database interactions with MySQL.
- Utilized RabbitMQ for asynchronous communication between services and Redis for caching, improving system performance by 25%.
- Deployed the application using Docker and Kubernetes for containerization and orchestration, ensuring seamless scalability.

JUETPlay App | Node.js, PostgreSQL JWT/OAuth2

April 2024

- Built JUETPlay using Node.js, a scoring app for campus sports, handling player data and scores in the back-end.
- Integrated PostgreSQL, REST API with Express.js, JWT/OAuth2 authentication, Redis caching, and async/await for concurrency, with Winston logging.
- Added Docker, CI/CD with GitHub Actions, unit tests with Mocha and Chai, WebSocket with ws library for real-time updates, and Prometheus/Grafana monitoring.
- Handled player data for 200+ athletes, maintaining a secure and efficient database with PostgreSQL.

GoShopHub | Go, REST API, Microservices, GraphQL, Elasticsearch

March 2025

- Architecting RESTful APIs with Go to handle product listings, user authentication, and order management.
- Integrating a PostgreSQL database with ORM for secure and efficient data storage. Elasticsearch for advanced product search, achieving a query response time of under 50ms for 1,000+ products.
- Architected APIs processing 1,500+ requests per minute with 99.99% uptime.

Experience

Bitwise

August 2024 – Present

Problem Setter

Guna

- Designed 20+ problems for coding contests, each tested against 10+ edge cases for comprehensive validation.
- Crafted problems of varying difficulty levels, including test cases to ensure fairness and challenge, enhancing my understanding of problem complexity and solution validation.
- Collaborated with club members to develop and review contest problems, contributing to events with 100+ participants, helping prepare members for competitive platforms like Codeforces and LeetCode.

Achievements

🏆 3x Winner - Kodethon Competitive Programming Contest

Demonstrated problem-solving and coding skills by winning Kodethon twice, competing against 100+ skilled programmers.

🔗 Competitive Programming Achievements

Solved over 1000 questions across platforms: 🔗 [CodeChef](#) (Highest Rating: 1782), 🔗 [LeetCode](#) (Rating: 1701), 🔗 [Codeforces](#) (Rating: 1304).

🏆 Winner - Freshmen Hacks Hackathon

Led a 4-member team to develop the project *Present Sir*, securing 1st place in the Freshmen Hacks Hackathon for innovation and technical proficiency.

Technical Skills

- * **Programming Languages:** C, C++, Python, JavaScript, Shell Scripting, GO
- * **Technologies & Frameworks:** React, Svelte, Node.js, Express, Tailwind CSS, MongoDB, Redis
- * **Tools & Platforms:** AWS, Linux, VS Code, GitHub, Git