

AMAR DUTT UPADHYAY

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Software Development Engineer with 2 years 10 months of hands-on experience building scalable applications using Node.js, JavaScript, and MySQL. Enhanced backend services, achieving a 30% performance boost and reducing database query time by 50% for Masterwiz Technologies Pvt. Ltd. Adept at solving complex technical challenges, consistently delivering projects on time while maintaining high standards of code quality.

EXPERIENCE

Software Developer Engineer

Masterwiz Technologies Pvt. Ltd

Jun 2022 - Present

- **Backend Optimization & Performance Improvements:** Engineered and enhanced backend services using Node.js, MySQL, and Redis to ensure seamless functionality and enhance the performance of the MyMaster11 application. Attained a 40% increase in optimization and reduced database query times by 50%, significantly boosting overall system efficiency. Main Product ([MyMaster11](#), [Sportswiz](#)).
- **Scalability and Cost Efficiency :** Deployed scalable solutions in Node.js and Redis, enhancing the MyMaster11 platform's capacity to manage boosted user traffic and high volumes. Enhanced resource usage, resulting in a savings of \$60000 annually while maintaining high performance.
- **Advanced Monitoring:** Architected a robust logging system for backend performance assessment , amplified fault detection capabilities, leading to a 30% decrease in support tickets related to system outages and enhancing user satisfaction.
- **Reliability Enhancements:** Executed comprehensive analysis and optimization of **150+** MySQL queries while introducing Redis caching; augmented platform reliability and reduced average server response times from **300ms** to under **100ms**, elevating user experience.
- **Collaboration:** Pioneered a collaborative effort with a cross-functional team of over 10 members to enhance backend services, achieving a 30% increase in system performance and reducing bug rates by 25% through targeted optimizations.
- **Leadership:** Directed the optimization of backend services by leading a diverse team, implementing enhancements that boosted system performance by 30% and diminished bug occurrences by 25%, ensuring robust application stability.

Software Developer Intern

Capgemini

Feb 2022 - May 2022

- Architected and crafted backend services using Node.js and PostgreSQL, resulting in a 40% improvement in data retrieval times and 30% reduction in database storage costs. Ensured efficient data management for various applications, supporting scalability and performance.
- Carried out rigorous testing and debugging of software components, identifying and resolving over 150 critical issues, which led to a 50% reduction in post-release defects and elevated overall application reliability and stability.

PROJECTS

MyMaster11 [\[view\]](#)

- **MyMaster11 Project Description:** Developed and optimized the backend of MyMaster11, a Dream11-like fantasy sports platform, using Node.js, MySQL, Redis, and Socket.IO to deliver a real-time, scalable, and secure user experience. Implemented RESTful APIs for user management, contests, team creation, and match data handling, while leveraging Redis for caching and Socket.IO for live score updates, leaderboard syncing, and instant result broadcasting. Optimized MySQL queries for high performance under heavy load, integrated JWT-based authentication, and built background jobs for automated point updates and contest settlements, ensuring seamless gameplay for thousands of concurrent users.
- **Backend Optimization & Performance Improvements:** Engineered and enhanced backend services using Node.js, MySQL, and Redis to ensure seamless functionality and enhance the performance of the MyMaster11 application. Attained a 40% increase in optimization and reduced database query times by 50%, significantly boosting overall system efficiency. Main Product ([MyMaster11](#)).
- **Website Development :** In addition to the core application, developed the official MyMaster11 website as an interactive front-end companion to the fantasy platform. The site dynamically consumes the backend APIs to showcase latest news, blogs, and match details, enhancing user engagement and providing valuable content for fantasy sports enthusiasts. Built using modern web technologies to ensure responsiveness and smooth performance across devices. ([MyMaster11](#)).

Sportswiz [\[view\]](#)

- **Sportswiz Project Description:** Developed Sportswiz, a comprehensive cricket information platform, offering real-time scores, ball-by-ball commentary, match schedules, player statistics, team rankings, news, and tournament coverage. Engineered the backend using Node.js, MySQL, Redis, RabbitMQ, and Socket.IO to ensure seamless data flow, real-time updates, and high scalability. Implemented event-driven architecture with RabbitMQ for efficient task queuing and background processing, while Redis was used for caching live match data and reducing database load. Socket.IO powered real-time score and commentary delivery to thousands of concurrent users, ensuring a fast user experience during live events.
- **Backend Optimization & Performance Improvements:** Engineered and optimized backend services for Sportswiz, a comprehensive sports information platform similar to Cricbuzz, using Node.js, MySQL, RabbitMQ (for managing cron jobs) and Redis. Achieved a 40% improvement in system optimization and reduced database query times by 50%, resulting in significantly enhanced performance and responsiveness across the application and website. ([Sportswiz](#))

Opinion Trading [\[view\]](#)

- **Opinion Trading Project Description:** Built Opinion Trading, a dynamic and scalable prediction-based trading platform where users can place real-time market opinions. The system delivers second-wise price fluctuations using Socket.IO, allowing users to react instantly and place orders with live updates. The backend was developed with Node.js, MySQL, Redis, and RabbitMQ, creating a robust, event-driven infrastructure that ensures efficient message queuing and background job handling. Redis was strategically utilized to cache real-time pricing and user session data, significantly minimizing latency and improving responsiveness. Amazon S3 is integrated for secure and scalable storage of user-uploaded content and assets.
- **Backend Optimization & Performance Improvements:** Engineered and optimized backend systems for Opinion Trading to handle high-frequency data changes and user transactions. Implemented microservice-based task handling using RabbitMQ for managing scheduled jobs and background processing. Achieved a 45% performance boost through strategic indexing, query optimization, and caching, leading to a 60% reduction in database load during peak usage. The integration of Socket.IO for dynamic price broadcasting ensured ultra-low latency updates for thousands of concurrent users, enhancing real-time interactivity and user engagement.

MyMaster11 SportsBuy

- **MyMaster11 SportsBuy Project Description:** Developed the complete backend infrastructure for MyMaster11 Shop, an e-commerce platform dedicated to sports merchandise and gear for fantasy sports fans. The platform supports both a user-facing storefront and an admin dashboard, built using Node.js, MongoDB, Redis, and Amazon S3 for high availability, scalability, and performance. Engineered RESTful APIs for product listings, category management, order placement, inventory tracking, user management, and payment processing. Integrated S3 for secure image and asset storage, and Redis for efficient session handling and caching frequently accessed product data.

- **Admin Dashboard & Platform Management:** Created a fully functional admin panel to manage products, orders, discounts, categories, and users. Enabled real-time status updates and analytics for inventory and sales using optimized API endpoints. Admins can upload images, manage SKUs, and view detailed sales reports through a seamless interface that interacts directly with the Node.js-powered backend.
- **Backend Optimization & Performance Enhancements:** Optimized the backend for fast performance and reduced response times by implementing effective indexing in MongoDB, using Redis to cache hot data, and minimizing redundant API calls. Achieved a 35% improvement in response times and significantly reduced server load during high traffic scenarios. Asynchronous job handling and optimized database schemas ensured a smooth and responsive user experience across both the website and dashboard.
- **Website Features:** The MyMaster11 Shop website showcases an interactive shopping experience where users can explore and purchase official merchandise and sports-related products. The frontend is powered by APIs built with Node.js, delivering dynamic content such as product filters, search, recommendations, and live inventory updates. Designed for speed, scalability, and a seamless user journey across desktop and mobile.

Chat Application

- **Real-time Communication:** Engineered and integrated real-time bidirectional communication using **Socket.IO** for dynamic data exchange and live updates between server and client.
- **Backend Development:** Constructed and refined scalable **RESTful APIs** using Node.js with Express.js, enabling efficient data handling and streamlined communication with frontend.
- **Database Management:** Designed and deployed complex MongoDB database schemas, ensuring data integrity and efficient querying for various services, including real-time updates. Leveraged **AWS S3** buckets for scalable, secure media storage and retrieval, optimizing the application for handling large media files and reducing server load.

Management Information System [📡]

- Designed and implemented a full-stack Management Information System (MIS) using Node.js and MongoDB, enhancing data retrieval speed by 40% and improving reporting accuracy for over 200 users across the organization.
- Backend Security and Scalability: Leveraged Node.js to create secure and scalable backend services, ensuring the core functionalities of the MIS meet enterprise-level security and performance requirements.
- Orchestrated business-critical data using Microsoft SQL Server (MSSQL), ensuring 99.9% data integrity and 20% faster query performance for complex queries. Deployed optimization strategies that refined data reliability and system performance, supporting efficient data handling and processing.

ACHIEVEMENTS

- **Integrated Opinion Trading Feature:** Successfully integrated the **Opinion Trading** feature into the MyMaster11 platform, significantly enhancing user engagement and satisfaction.
- **Recognition for Technical Excellence:** Drove significant improvements in platform functionality through the implementation of Node.js, leading to improved user experiences; recognized for contributions that supported 1M+ transactions without degradation in performance.

SKILLS

- Javascript | Nodejs | Reactjs | MySQL | MongoDB | Git | RabbitMQ | C
- AWS | Google Cloud | CI/CD | Serverless | Linux | Microservices

EDUCATION

Master of Computer Application	Galgotia College of Engineering and Technology	Greater Noida, India
● Master of Computer Application(MCA)		