

# Yash Gupta

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## EXPERIENCE

### Software Engineering Intern

*MobiRapid*

July 2025 – August 2025

Bengaluru, Karnataka

- Developed scalable full-stack inventory management system using React, Node.js, and MongoDB, ensuring secure and reliable stage-wise device tracking
- Designed RESTful APIs and optimized MongoDB queries with indexing to achieve sub-200ms response on 10K+ records, improving system performance and reliability
- Implemented JWT-based authentication and role-based access with audit logs to strengthen security and support multi-team collaboration
- Built dynamic user-facing forms with validation to reduce manual errors and improve customer experience
- Automated reporting workflows and integrated cross-platform CORS-secured APIs to streamline operations and enable third-party integrations

## EDUCATION

### B.M.S College of Engineering

*B.Tech in Electronics and Telecommunication — CGPA: 8.2*

Sep 2023 – May 2027

Bengaluru, Karnataka

## PROJECTS

### Electronics Signal Generator | C++, Arduino, ESP32, C



- Developed a real-time waveform generator on ESP32 using DAC output with custom lookup tables for sine, triangle, sawtooth, and square waves
- Integrated SH1106 OLED display to visualize waveform, frequency, and amplitude with responsive button-based user controls
- Optimized ISR-driven DAC pipeline at ~43 kHz for smooth analog signal output with simple debounce handling for reliable input

### YEEZUS | JavaScript, React.js, GSAP



- Created an engaging, scalable web app with scroll-triggered animations and optimized asset delivery
- Applied advanced CSS and JS techniques (clip-paths, transitions, 3D hover effects) to design interactive user experiences
- Enhanced storytelling and engagement with video-driven transitions and responsive design principles

## EXTRACURRICULAR ACHIEVEMENTS

### Senior Flight Control Engineer

*Rocketry BMSCE*

June 2024 – July 2025

Bangalore, Karnataka

- Engineered control algorithms in C++ to improve reliability and stability of high-performance flight systems
- Optimized real-time sensor data pipelines and reduced latency in control loops, showcasing strong problem-solving in distributed, performance-critical systems
- Simulated and validated algorithms under varying conditions, reinforcing focus on scalability, testing, and fault tolerance

## TECHNICAL SKILLS

**Languages:** JavaScript, Python, Java, C/C++, HTML, CSS

**Frameworks & Tools:** React, Node.js, Express.js, TypeScript, FastAPI, Git, Linux

**Concepts:** REST APIs, Web Services, SOA, Distributed Systems, Data Structures

**Libraries:** GSAP, Three.js, NumPy, Matplotlib, PyTorch