# **Sujal Raval**

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#### **EDUCATION**

Masters of Science Information Technology [Software Development]

June 2024 - Anticipated

 $Gujarat University-Center for Professional Courses \mid CGPA: 8.93$ 

Bachelors of Science Information Technology [Software Development]

GujaratUniversity-CenterforProfessionalCourses | CGPA: 7.48

June 2021 - May 2024

#### **TECHNICAL SKILLS**

Programming Languages: Python, Java, JavaScript, Dart, C++, C, HTML5, CSS3

Data Structures & Algorithms: Arrays, Linked List, Trees, Graphs, Dynamic Programming, Sorting, & Searching

Web Technologies: React.JS, Node.JS, Express.JS, MongoDB(MERN Stack), Django, PHP, React Native

Databases: MySQL, MongoDB, PostgreSQL, Oracle, Firebase

Systems & Tools: Linux/Unix, Git, GitHub, VS Code, Command Line Interface

Frameworks & Libraries: Flutter, Tailwind, ShadCN, Bootstrap, jQuery, RESTful APIs

Other: Software Design Patterns, System Architecture, Database Optimization

# **Technical Involvement & Highlights**

- Technical Lead, University Coding Club Organized coding competitions and technical
- workshops. Peer Mentor Guided juniors in programming concepts and project building.
- Technical Support Volunteer Aided in student sessions covering core dev and coding topics.
- Built 15+ full-stack applications demonstrating scalability and performance optimization. Strong
- foundation in algorithmic thinking and optimization techniques.

#### **PROJECTS**

# QR-BasedAttendance & ERP ManagementSystem | [March 2025 - July 2025]

https://sujal-attendance.vercel.app

- Developed real-time attendance tracking system processing 1000+ scan operations daily.
- Implemented QR code generation and validation algorithms with 99.8% accuracy rate.
- Built automated reporting dashboard reducing manual attendance processing time by 80%.
- $\bullet \ \ Designed \ distributed \ system \ architecture \ to \ handle \ multiple \ concurrent \ scanning \ sessions.$
- Technologies: React.js, Node.js, Express.js, MongoDB, ShadCN.

# GUCPC Official Website | [Jan 2025 - march 2025]

https://gucpc.in

- Architected and developed a scalable full-stack web application using MERN stack serving 500+ concurrent users.
- Implemented responsive design with React.js, reducing page load time by 40% through code optimization.
- Designed RESTful APIs with Node.js and Express.js, handling 1000+ daily requests efficiently.
- Integrated MongoDB with optimized queries, improving data retrieval speed by 35%.
- Technologies: React.js, Node.js, Express.js, MongoDB, HTML5, Tailwind CSS.

#### Algorithm Visualization Tool | [Sep 2024 - Nov 2024]

https://github.com/sujalraval/Algorithm-Visualization-Tool.git

- Created interactive web application demonstrating 15+ sorting and searching algorithms.
- Implemented dynamic visualizations showing algorithm complexity and performance metrics.
- Built educational platform used by 100+ students for learning data structures and algorithms.
- Implemented advanced search algorithms and recommendation systems using graph-based approaches.
- Technologies: JavaScript, HTML5, CSS3, Algorithm Implementation.

### Social Networking Platform | [Feb 2024 - July 2024]

https://github.com/sujalraval/Social-networking-site-asp.net mvc.git

- Built a comprehensive social networking application supporting real-time messaging for 200+ users.
- Developed user authentication system with JWT tokens and implemented role-based access control.
- Designed RESTful APIs with Node.js and Express.js, handling 1000+ daily requests efficiently.
- Implemented advanced search algorithms and recommendation systems using graph-based approaches.
- Technologies: Asp.Net MVC, SQL SERVER, HTML5, Bootstrap CSS.