DHRUV SHARMA

Software & IoT Developer

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PROFESSIONAL SUMMARY

Information Technology undergraduate with a strong foundation in software engineering, Java web development, and IoT systems. Experienced in building full-stack applications and ESP32-based monitoring prototypes, with ongoing healthcare research experience. Focused on developing practical solutions that connect software, data, and embedded systems.

EDUCATION

K. J. Somaiya Institute of Technology, Mumbai

Bachelor of Technology (B.Tech) in Information Technology | CGPA: 9.2 | Expected Graduation: 2028

TECHNICAL SKILLS

Languages: Java, Python, Dart, JavaScript, C, SQL

Web & Mobile: Flutter, HTML, CSS, JSP, Servlets, JDBC

Backend & APIs: FastAPI, REST APIs, Apache Tomcat

Databases & Cloud: MySQL, MongoDB, Firebase (Authentication, Cloud Firestore), Google Cloud

IoT & Embedded: ESP32, Arduino IDE, MQTT, Sensor Interfacing

Tools: Git, GitHub

Fundamentals: Data Structures & Algorithms, DBMS, Software Engineering, Operating Systems, Computer Networks

INTERNSHIP EXPERIENCE

Research Intern | K. J. Somaiya College of Physiotherapy, Mumbai | July 2026 - Present

- Collaborating on an IoT-based healthcare device for haemophilia monitoring and patient support.
- Supporting hardware integration, sensor interfacing, embedded development, and prototype testing within a multidisciplinary team.

Research Intern | R&D Cell, K. J. Somaiya Institute of Technology, Mumbai | Duration: 1 month

- Contributed to an indoor air quality management system integrating IoT hardware and AI concepts.
- Assisted faculty mentors with prototype design, hardware integration, validation, and technical documentation.

PROJECTS

HemoPhysio | Flutter | Dart | FastAPI | Firebase | ESP32-S3 | IoT

- Developed a digital physiotherapy guidance and rehabilitation support application for haemophilia patients.
- Integrated the mobile app with a Python/FastAPI backend and Firebase authentication and database services.
- Prototyped IoT monitoring using ESP32-S3, MPU motion sensing, and BioAmp signal acquisition.

Fieldwise - Farm & Irrigation Simulator | HTML | CSS | JavaScript

- Built an interactive frontend with crop selection, weather scenarios, and a 30-day farm simulation.
- Implemented irrigation scheduling and visual tracking of soil moisture and crop vitality using simplified simulation rules.

SkillConnect | Java | JSP | Servlets | JDBC | MySQL | Apache Tomcat

- Developed a full-stack platform connecting skilled professionals with potential customers.
- Implemented login, session management, database integration, and CRUD functionality using MVC architecture.

Pura Air | ESP32 | MQTT | IoT

- Developed a real-time indoor air quality monitoring solution with multiple sensors integrated with ESP32.
- Designed the architecture to support future AI-based prediction and cloud connectivity.

Pura Aqua | ESP32 | IoT | Embedded Systems

- Designed a water quality monitoring prototype using pH, TDS, turbidity, and temperature sensors.
- Developed embedded logic for real-time assessment and purification recommendations, with a focus on affordability.

WelfareWatch | Data Analytics | SQL | Dashboard Development

- Built interactive dashboards to evaluate welfare scheme implementation and analyse beneficiary trends.
- Created visual reports comparing performance indicators and scheme effectiveness.

INTERPERSONAL & SOFT SKILLS

Problem Solving • Team Collaboration • Leadership • Effective Communication • Quick Learning • Time Management