

## RATNAJEET PATIL

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## EDUCATION

### DES Pune University

Pune, India

Bachelor of Technology, Computer Science

CGPA: 8.4

Expected: June 2027

*Relevant Coursework: Data Structures, Algorithms, Database Management Systems, Software Engineering*

### Sou Venutai Chavan Polytechnic

Pune, India

Diploma in Computer Technology

Percentage: 80%

June 2024

*Achievement: Published research paper on RFID-based Attendance System*

## EXPERIENCE

### Software Developer Intern

Sujalam Chemicals (Remote)

June 2023 – August 2023

- Developed cross-platform inventory management app using React Native, improving operational efficiency by 70%
- Built Express.js backend with SQLite database integration to ensure seamless data synchronization
- Designed intuitive UI/UX that reduced user onboarding time by 50% and increased staff adoption
- Implemented real-time order tracking and analytics dashboard utilized daily by 10+ staff members

## PROJECTS

### AutoManim | [GitHub](#)

- Engineered a Flask web application that generates Manim animations from natural language using Groq API
- Reduced animation creation time by 90% for mathematical education videos
- Enabled code-free video rendering for 100+ animation scenarios through real-time code execution

### Visitor Entry & Approval System | [GitHub](#)

- Developed Android application for secure visitor registration with Room database backend
- Implemented real-time notifications and approval workflows for enhanced access control
- Improved **entry processing speed by 60%** through mobile automation and streamlined interface

### Smart Attendance System | [GitHub](#)

- Engineered Arduino-based RFID attendance system with ESP8266 connectivity and LCD display
- **Achieved 95% accuracy** in RFID scanning and automatic attendance tracking
- Eliminated manual attendance logging in academic environments through IoT integration

### Inventory & Order Management App | [GitHub](#)

- Created React Native application to manage chemical inventory and streamline order flow
- **Increased order fulfilment efficiency by 65%** through dynamic UI and optimized data handling

**Attendance Dashboard UI** | [GitHub](#)

- Built responsive interface using Tailwind CSS, JavaScript, and HTML for parent-teacher attendance tracking
- Enhanced accessibility and engagement by providing real-time student attendance updates

**IoT-based Smart Light Switch** | [GitHub](#)

- Integrated Alexa-controlled smart switch using Arduino IoT Cloud
- Enabled voice-activated home automation, **reducing manual switch usage by 85%**

**RESEARCH & LEADERSHIP**

**Research Contributor**

RFID Attendance System Paper

Pune, India  
Jan 2024 – Mar 2024

- Co-authored and published research paper on RFID-based attendance management systems
- Presented technical findings at regional tech conference with 100+ industry professionals

**TECHNICAL SKILLS**

- **Languages:** Java, Python, JavaScript, TypeScript, C++, C
- **Frameworks & Libraries:** React.js, React Native, Node.js, Flask, Arduino
- **Databases:** SQL, MySQL, MongoDB, SQLite
- **Tools:** Git, GitHub, VS Code, Linux
- **Certifications:** Java, JavaScript, CSS, SQL, Node.js (HackerRank), Python & ML (Kaggle), Cybersecurity (LinkedIn)

**INTERESTS**

Home automation, Robotics, Mobile UI/UX design, Animation rendering, Open-source contributions, AI & ML