

Sathwik Shenoy

Bangalore, India | +91-8197206978 | [E-mail](#) | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

Professional Summary

Computer Science Engineering student specializing in scalable machine learning and full-stack web applications. Experienced in building and deploying robust platforms with modern web technologies and developing accurate machine learning models for real-world applications. Actively seeking software engineering internships to apply technical and problem-solving skills in dynamic environments.

Skills

- **Programming & Frontend:** Python, C, C++, JavaScript (ES6), HTML5, CSS3, React, Material-UI, AJAX, Bootstrap 5, TailwindCSS, Jinja2, Chart.js, Axios
- **Backend & APIs:** Flask, FastAPI, Flask-RESTX, SQLAlchemy, REST APIs, JWT, Celery, Task Queues
- **Databases & ORM:** PostgreSQL, SQLite, Alembic
- **DevOps & Infrastructure:** Docker, Docker Compose, Nginx, Redis, Cron Jobs
- **Machine Learning & Data:** PyTorch, scikit-learn, Pandas, NumPy, TF-IDF, PySyft, Plotly
- **Financial & Analytics:** Alpha Vantage API, Technical Analysis, RSI/MACD/SMA/EMA indicators, Real-time Data Processing
- **Tools & Others:** Git, GitHub, Swagger/OpenAPI, ReportLab, Render, Authentication, Database Design, Async/Await

Projects

[Stock Market Alert System \(Full-Stack Financial Application\)](#)

- Implemented advanced technical indicators calculator (RSI, MACD, SMA/EMA, Bollinger Bands) with high accuracy and fast response times for real-time market data processing and analysis.
- Designed modern React dashboard with Material-UI components, featuring glassmorphism design, interactive watchlists, real-time price updates, and responsive charts for efficient market analysis.
- **Technologies:** React, Express.js, MongoDB, JWT, Alpha Vantage API, Material-UI, Chart.js, Axios, Node-cron, Nodemailer, Technical Analysis

[Personal Finance Tracker \(Full-Stack Web Application\)](#)

- Developed secure Flask-PostgreSQL platform for multiple users, delivering real-time financial insights and comprehensive reports with dual authentication systems.
- Built scalable infrastructure using Docker Compose, Nginx, Redis, and PostgreSQL cluster ensuring high uptime and efficient transaction handling.
- **Technologies:** Python, Flask, PostgreSQL, Docker, JWT, Bootstrap 5, Plotly, SQLAlchemy, Nginx

[Movie Recommendation System \(Machine Learning Application\)](#)

- Created Python/Flask platform with scikit-learn for real-time, personalized movie suggestions via AJAX frontend with high accuracy performance.
- Engineered TF-IDF vectorization on extensive TMDB dataset with cosine similarity, deployed with caching and efficient ML techniques for production readiness.
- **Technologies:** Python, scikit-learn, Flask, AJAX, TF-IDF, Pandas, Render

[YouTube Video Download Platform \(Task Management System\)](#)

- Built full-stack Flask app using yt-dlp to manage concurrent downloads with high completion rates and low latency performance.
- Implemented Celery/Redis for asynchronous tasks and cron jobs for efficient storage management with comprehensive error handling and tracking.
- **Technologies:** Flask, Celery, Redis, yt-dlp, Cron Jobs, Task Queues

Work Experience

Electronics Engineering Intern

Bhabha Atomic Research Centre (BARC), Electronics Division | Mumbai | June 2025–July 2025

- Completed specialized training in electronics systems and instrumentation within the Electronics Division at India's premier atomic research facility.
- Developed and tested ModbusTCP and ModbusRTU Slave and Master communication protocols using FreeModbus Open Source Library for industrial automation systems.

Education

Bachelor of Engineering in Computer Science Engineering
University Visveshvaraya College of Engineering, Bangalore

Dec2022 - Aug 2026
CGPA: 7.85/10.0

Relevant Coursework: Data Structures and Algorithms, Database Management Systems, Operating Systems, Computer Networks, Software Engineering, Object-Oriented Programming, Machine Learning, Web Technologies

Pre-University Course (Science)
JnanaSudha P.U. College

2022
Aggregate: 96%

Awards & Activities

- **Finalist**, College Fest Debate Competition, 2024
- **Organized Coding Competition**, College Technical Fest, 2023
- **2nd Prize**, Short Put, Intra-college Athletics, 2020