

# SAMIR MODE

Mumbai, Maharashtra, India

📞 +91-9420411487 📩 samirmode763@gmail.com 💬 Samir Mode 💬 samirmode05

## Education

<b>Veermata Jijabai Technological Institute</b> <i>Bachelor of Technology in Electronics and Telecommunications, CGPA: 8.55</i>	<b>Aug 2023 – May 2027</b> <i>Mumbai</i>
<b>Indian Institute of Technology, Madras</b> <i>Bachelor of Science in Data Science and Applications, CGPA-7.19</i>	<b>Jan 2024 – May 2027</b> <i>Chennai(Remote)</i>

## Relevant Coursework

- Object Oriented Programming
- Database Management Systems
- Operating Systems
- Data Structures & Algorithms
- Data Analysis

## Projects

<b>NEP Timetable Generator (SIH)</b>   <i>React.js, FastAPI, Supabase (PostgreSQL), DEAP</i>	<b>Aug 2025</b>
<ul style="list-style-type: none"><li>– Built a constraint-driven timetable generation engine using Genetic Algorithms (DEAP) for NEP-compliant scheduling.</li><li>– Designed a fitness function minimizing clashes, resource overload, and student idle time.</li><li>– Implemented a population-based optimization pipeline with crossover, mutation, and tournament selection.</li><li>– Integrated FastAPI backend with Supabase to fetch academic data and store optimized schedules.</li><li>– Reduced scheduling time by over 95%, generating complete timetables within minutes.</li></ul>	
<b>Portfolio Backtesting Engine</b>   <i>Python, Pandas, NumPy, OOP</i>	<b>June 2025</b>
<ul style="list-style-type: none"><li>– Built an object-oriented Python tool to backtest asset allocation strategies using historical market data.</li><li>– Designed classes for Asset and Portfolio to compute returns, volatility, and risk-adjusted performance.</li><li>– Implemented key performance metrics such as Sharpe Ratio, Max Drawdown, and annualized returns.</li><li>– Optimized computations using vectorized operations for faster multi-asset simulations.</li></ul>	

<b>LLM Based Automation Agent – TDS IIT Madras</b>   <i>Python, LLM Models, API, SQLite</i>	🔗
<ul style="list-style-type: none"><li>– Automation Agent for CI Pipeline Integration.</li><li>– Designed and implemented an automation agent to parse and execute plain-English tasks, leveraging GPT-4o-Mini for deterministic processing.</li><li>– Automated 10 operational tasks, including data generation, file formatting, date counting, JSON sorting, log processing, Markdown indexing, and data extraction using LLMs and embeddings.</li><li>– Developed RESTful API endpoints (/run and /read) for task execution and output verification.</li></ul>	
<b>Technical Skills</b>	
<b>Languages:</b> Python, C++, HTML, SQL	
<b>Tools / Platforms:</b> Git, Google Colab, VS Code, MS Excel, Google Sheets, Power BI	
<b>Libraries/Frameworks:</b> NumPy, Pandas	
<b>Databases:</b> PostgreSQL, SQLite, MongoDB	

## Achievements

Awarded the prestigious FBHMF Scholarship by **Federal Bank** — a 4 lakh grant awarded over 4 years to only 476 students across India.

Secured AIR 8984 in **JEE Advanced 2023**, conducted by **IIT Guwahati** — among the top 2% of over 1.9 lakh candidates nationwide.

## Positions of Responsibility

<b>Community of Coders</b> <i>Volunteer – CodeHunt Coding Event</i>	<b>April 2025</b> <i>VJTI</i>
<ul style="list-style-type: none"><li>– Assisted in event coordination, team registration, and smooth execution of multiple coding rounds.</li><li>– Helped manage logistics, resolve participant queries, and ensure adherence to event timelines.</li><li>– Provided technical assistance to participants by resolving coding doubts related to syntax, logic errors, and language-specific issues in real time.</li></ul>	