SATYAJEET PRAKASH

Software Engineering | **Product & Project Management** | **Embedded Systems** | **AI/ML** | **Full-Stack Development**

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SUMMARY

Final-year B.Tech Electrical Engineering student with a broad technical profile spanning software development (Java, Python, JavaScript), AI/ML, embedded systems, product management, and operations. Experienced across 8+ internships and 10+ projects in domains including backend engineering, VLSI design, app development, UX design, and control systems. Published IEEE researcher, hackathon winner, and competitive programmer. Seeking roles in software engineering, product/project management, or technical operations where I can deliver immediate, measurable impact.

EDUCATION

Institute of Engineering & Management (IEM) 2023 – 2026
Bachelor of Technology – Electrical Engineering *Kolkata*

JIS College of Engineering (WBSCTE) 2020 – 2023
Diploma – Electrical Engineering *Kolkata*

Dayanand Anglo Vedic (DAV) Public School 2020
Secondary Education (Class X) – CBSE *Bihar*

TECHNICAL SKILLS

Languages & Frameworks: Python, Java, C++, JavaScript, HTML/CSS, SQL, Verilog/VHDL
AI / ML & Data: TensorFlow, OpenCV, BERT/NLP, Scikit-learn, Streamlit, Docker, REST APIs, Azure AI, AWS
Embedded & Hardware: FPGA, ASIC Design, RTL Synthesis, ModelSim, MATLAB/Simulink, AutoCAD, Arduino/IoT
Product & PM Tools: Jira, Trello, Notion, Figma, Adobe XD, Miro, Google Workspace, MS Excel (Advanced – Pivot, Dashboards)
Methodologies: Agile/Scrum, Design Thinking, Human-Centered Design, SDLC, KPI Tracking, Cross-Functional Collaboration

EXPERIENCE

mjunction Services Ltd. (JV of Tata Steel & SAIL) Feb 2026 – Present
Backend Developer Intern *Kolkata*
- Built and maintained REST APIs and backend services in Python; improved module delivery speed by ~15% and reporting workflow efficiency by ~20% via database query optimisation.
- Participated in Agile Scrum ceremonies (sprint planning, retrospectives, backlog grooming); tracked 15+ KPIs across cross-functional teams using Excel dashboards.

Infosys Springboard Nov 2025 – Feb 2026
Java Developer Intern *Remote*
- Developed and delivered structured Java modules following quality validation frameworks in a distributed team environment; maintained compliance documentation and centralized progress trackers.

IBM Aug 2025 – Oct 2025
Front-End Developer Intern *Remote*
- Designed and implemented responsive web interfaces (HTML, CSS, JavaScript); optimised loading performance by 20% and conducted code reviews to improve code quality.

Excelerate Sep 2025 – Oct 2025
Associate Project Manager Intern *Remote (Dubai)*
- Developed a comprehensive project plan for a Global Career Fair integrating AI-driven task management; automated Excel reporting workflows improving efficiency by 15%.
- Assessed AI tools for resource allocation and risk management, identifying opportunities to reduce workflow effort by 15%; enhanced team coordination efficiency by 20%.

Jadavpur University Jan 2025 – Feb 2025
VLSI Design & Microelectronics Intern *Kolkata*
- Designed and simulated digital modules in Verilog; implemented on FPGA boards. Performed RTL synthesis and timing optimisation, boosting critical-path performance by 20%.

IIT Hyderabad May 2024 – Jul 2024
Summer Undergraduate Research Intern (SURE) *Hyderabad*
- Applied transfer learning (BERT) for NLP tasks, boosting model F1-score by 12%. Designed automation systems improving operational efficiency by 15% and reducing equipment downtime by 20%.

Bharat Intern Feb 2024 – Mar 2024
App Developer Intern *Remote*
- Developed a to-do list app with task categorization, reminders, and cloud sync; a weather forecast app with real-time updates; and a quiz app with leaderboard functionality.

CodSoft Feb 2024 – Apr 2024
Java Developer Intern *Remote*
- Completed 5 Java projects: number game, student grade calculator, ATM interface, currency converter, and student management system – demonstrating proficiency across OOP, UI design, and data handling.
- Improved application performance by 30% through multi-threading; integrated REST APIs and refined UI responsiveness.

Feuchr – School of Excellence Pvt. Ltd. Aug 2022 – Jan 2023
Electrical Network Analysis Using MATLAB Intern *Remote*
- Conducted detailed electrical network analysis and cost estimation using MATLAB under real-world load conditions; improved fault detection accuracy and practised risk assessment in planning stages.

PROJECTS

Event-Driven Control Systems for Quadrotor UAVs | ***Python, Control Theory, IEEE Publication*** *2025–2026*
- Led design, stability analysis, and documentation of event-driven UAV control architecture; coordinated milestones across institutions – accepted at IEEE ICAEICT 2026.

Secure Cloud Storage System | ***AES-256, Blockchain, Python, Cloud Security*** *May 2025*
- Engineered file storage platform using AES-256 encryption and blockchain-based access control; eliminated unauthorized access and improved data retrieval performance by 40%.

Anti-Sleep Alarm for Drivers & Vehicle Control | ***AI, OpenCV, Facial Landmarks, IoT*** *Jan 2024*
- Built AI-based drowsiness detection system achieving 92% accuracy; integrated automated vehicle speed control and safe parking guidance, reducing manual override by 80% in tests.

Railway Time Tracking & Prediction System | ***Python, Django, REST API, Real-time Web*** *Nov 2024*
- Developed full-stack web platform with 90% ETA prediction accuracy; admin and user modules for train schedule management; integrated live alerts reducing user wait-time confusion by 70%.

Smart Traffic Management System | ***AI, OpenCV, Streamlit, Docker*** *Apr 2024*
- Designed real-time computer vision system to dynamically control traffic signals; reduced simulated congestion by 45%; deployed monitoring dashboards using Streamlit and Docker.

Apache Solar Benchmarking & Monitoring | ***Golang, Prometheus, Grafana, Load Testing*** *Mar–Apr 2023*
- Deployed 4 solar clusters; integrated Prometheus & Grafana for real-time monitoring. Conducted load testing with Golang scripts and Siege; achieved worst-case RTT of 993 ms at 1000 QPS, analyzing p95/p99 metrics.

Basic Browser – Computer Networks | ***C, Socket Programming, TCP, HTTP 1.1*** *Mar 2023*
- Developed a text-based browser using socket programming in C; implemented TCP HTTP 1.1 server handling concurrent GET & PUT requests with file upload/download support (HTML, text, PDF) and error handling.

Hospital Management System | ***Flask, SQLAlchemy, PostgreSQL, JWT, SendGrid*** *Feb–Apr 2023*
- Designed backend with Flask and PostgreSQL; features include appointment scheduling, room allocation, prescription management, JWT-based authentication, SendGrid mailing, and DigitalOcean file storage.

Single Cycle RISC Processor | ***Verilog, FPGA, ISA, Python Assembler*** *Oct–Nov 2022*
- Designed 32-bit RISC processor with 32 registers supporting arithmetic, shift, branching, and memory instructions; built custom Python assembler and test suite; deployed and verified on Nexus 4 FPGA.

Arduino-Based Ultrasonic Radar System | ***Arduino, Ultrasonic Sensors, Embedded C*** *Feb 2023*
- Developed low-cost real-time object detection system using ultrasonic sensors; displayed live distance measurements on LCD/LED with optional servo motor integration for wide-angle scanning.

Online Class Management System | ***Django, Agora SDK, WebRTC, Unit Testing*** *2022*
- Built Django-based platform for live classes and assignment management using Agora SDK and WebRTC for live streaming; achieved 86% code coverage with Django-Test-Utility unit tests.

Smart Eco-Friendly Solar Cooker | ***IoT, Microcontrollers, Sun-Tracking, Temperature Sensors*** *Aug 2022*
- Developed solar cooker with IoT connectivity for remote monitoring; integrated temperature sensors, sun-tracking capabilities, and microcontrollers for optimal energy absorption.

Solar-Wind Hybrid Generation System | ***Renewable Energy, Power Systems, Simulation*** *Apr 2022*
- Designed a renewable energy system combining solar and wind power to deliver reliable electricity for off-grid and remote areas; simulated and evaluated generation capacity and load distribution.

Autonomous Fire Detection & Suppression System | ***IoT, AI, Multi-sensor, Actuation*** *May 2023*
- Built multi-sensor IoT system with >93% fire detection precision using thermal and visual inputs; automated suppression triggered within 5 seconds of detection with verified response time reproducibility.

Smart Waste Management System | ***IoT, Ultrasonic Sensors, Route Optimization*** *Dec 2022*
- Designed scalable IoT-based bin monitoring system with real-time fill-level detection; improved waste collection efficiency by 30% and reduced operational costs through optimized routing.

CERTIFICATIONS

Google UX Design Professional Certificate | Google IT Support Professional Certificate | Google Cybersecurity Certificate | Google Digital Marketing & E-commerce Certificate | IBM Generative AI for Project Managers | AWS APAC Solutions Architecture (Forage) | Microsoft Excel Professional Certificate | McKinsey Forward Program | HackerRank Software Engineer Certificate | HackerRank SQL (Advanced) | Accenture Nordics Software Engineering Virtual Internship (Forage) | Develop GenAI Apps with Gemini & Streamlit (Google Cloud) | IEEE ICAEICT 2026 Publication

ACHIEVEMENTS & LEADERSHIP

Winner – SKILLS STRIKE 3.0 Hackathon (Cybersecurity) | 1st Place – IEM Coding Hackathon | 2nd Place – JIS Tech-Fest | Top 10 Global – LeetCode Contest (Rating: 1776) | Global Rank 136 – Codeforces Round 1033 (Specialist) | IIT Bombay Indigo Squad Member | GirlScript Summer of Code Mentor & Contributor | Google Developer Student Club Member | Institution of Engineers of India (IEI) Member | Topmate.io Mentor

LANGUAGES & SOFT SKILLS

Languages: English (Professional) | Hindi (Native) | Bengali (Professional Working)

Soft Skills: Analytical Problem Solving | Stakeholder Communication & Technical Documentation | Cross-Functional Collaboration | Agile Execution & Sprint Ownership | Deadline-Driven Delivery | Adaptability & Self-Directed Learning | Leadership & Peer Mentorship | Data-Driven Decision Making | Risk Management | Creative Thinking & Rapid Prototyping