HRIDAY SARKAR

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Agartala, Tripura

EXPERIENCE

Bosch India Pvt. Ltd., Pune May – July 2026
Summer Intern

- Designed and developed a Java-based Digital Breakdown Logbook **Desktop Application** that transformed paper-based maintenance workflows into secure digital records, eliminating manual transcription to Excel and improving maintenance data traceability.
- Developed an AI-powered semantic search engine enabling maintenance engineers to retrieve historical machine breakdowns and corrective actions using semantic similarity, accelerating issue resolution.
- **Tech Stack:** Java, Java Swing, SQLite, JDBC, Git, Semantic Search.

PROJECTS

AI-Powered Maintenance Knowledge Search Engine

- Developed a Java desktop application that retrieves historical machine breakdowns using semantic search instead of conventional keyword matching.
- Enabled engineers to quickly identify recurring failures and retrieve historical corrective actions, improving troubleshooting efficiency.
- Built using Object-Oriented Programming principles with an optimized SQLite database for fast retrieval.
- **Technologies:** Java, Java Swing, SQLite, JDBC, Semantic Search.

Digital Breakdown Logbook

- Developed a secure Java desktop application to replace handwritten machine breakdown logbooks with digital maintenance records.
- Eliminated duplicate manual data entry by enabling direct digital logging of maintenance activities, preventing future Excel transcription backlog.
- Implemented user authentication, structured breakdown logging, corrective action tracking, searchable maintenance history, and report management.
- **Technologies:** Java, Java Swing, SQLite, JDBC, Git.

TECHNICAL SKILLS

Programming Languages: Java, Python, SQL, C
Frameworks & Libraries: Java Swing, JDBC
Databases: SQLite, PostgreSQL
Tools: Git, GitHub, Maven, Linux, IntelliJ IDEA, Eclipse
Core Computer Science: Data Structures & Algorithms, Object-Oriented Programming (OOP), DBMS, Operating Systems, Computer Networks, REST APIs, Software Development Life Cycle (SDLC)

EDUCATION

National Institute of Technology Agartala 2023–2027
Bachelor of Technology in Electronics and Communication Engineering **CGPA: 6.72**

Jawahar Navodaya Vidyalaya 2022
Senior Secondary (CBSE) **85.8%**

Jawahar Navodaya Vidyalaya 2020
Secondary (CBSE) **84%**

CERTIFICATIONS

- **Ethical Hacking & Penetration Testing** – C-DAC Noida (Ministry of Electronics & Information Technology, Government of India), Online Virtual Internship, May–June 2025
- **CCNA: Network Fundamentals** – Techademy Platform, May 2025
- **Basic Relational Database Design (MySQL)** – Techademy Platform, June 2025

ACHIEVEMENTS

- Awarded the prestigious **Siemens Scholarship (Batch 11)** as one of **300 scholars selected across India**.