# SALIL HIREMATH

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#### **EDUCATION**

B.Tech (Hons) CSE(IoT & IS), Manipal University Jaipur

Expected Oct 2026

GPA: 8.6

#### **SKILLS**

Core CS & Engineering DSA, OS, OOPs, Computer Networks, Embedded Systems, Assembly

Languages: Python, Java, Shell Scripting, HTML, JavaScript, Bash

Frameworks/ Softwares Tools
Soft Skills
SAP (Basics of FI/CO), Azure, Docker, QT, PowerBI, Microsoft Suite.
Communication, Team Leadership, Debugging, Problem Solving.

#### SAP & ERP EXPOSURE

- -Currently pursuing self-paced SAP FI/CO course on coursera.
- -Familiar with enterprise system workflows and finance module structures in SAP
- -Understanding of financial data integration and process automation within ERP systems.

#### **EXPERIENCE**

## Project Intern Combat Aircraft System Development and Integration Centre - DRDO

May 2024 - Aug 2024 Bengalauru, KA

-Developed a Multi - model software solution for LCA tejas for the radar warning receiver using different algorithms and frameworks (analyzing over 30 parameters for most accurate readings). -Contributed to initial planning for Advance Radar Frequency Detection system .

## Network & Satellite Intern HCL Infosystems

May 2023 - Jul 2023 *New Delhi*, *DL* 

-Worked under the networking and satellite division of HCL Corporation from gaining knowledge of different parts used in a VSAT to different types of radars and how a signal is converted and transmitted to location which are not covered by hard wires (Connecting over 80+ remote regions). -Under the Networking Division, I gained experience in using the Cisco packet tracer and planning out network map for 5+ clients with complex networks and configuring switching and routers for efficient communication.

#### **PROJECTS**

## ML Implementation for Advanced Flight Radar Receiver Github

- -Advanced flight radar receiver Designed and implemented the internal tool for comparing multiple ML models and -rameworks for the most efficient way to identify unknown radar frequency signals and objects(Managing 30+ attributes and factors).
- -Developed software for radar receiver systems. Worked in an environment involving high-scale data flow and structured testing workflows, similar to enterprise-level process architecture
- -Developed the backend in Python for management of frameworks and models.
- -Integrated comparison with the existing algorithm used in current gen aircraft.
- -Deployed the entire architecture over their propriety flight rig for testing (ensuring smooth running and accurate results) .

## MediCure - Your AI Health Companion Github

A generative AI-powered healthcare chatbot that provides preliminary guidance based on user-reported symptoms. It helps users understand whether they may need to consult a doctor — all based on publicly available healthcare FAQs. (Note: It's not a diagnostic tool.).

Tech Highlights:

- LLMs + Custom Agent (Reduces the Load on the LLM by 70- Python & Flask backend
- Trained on curated medical FAQs for safe, general advice

Future Aspects currently working on: A lot of the times the reports and medical scan given by the hospital are out of patients knowledge to under so i am working on a integrating a ReSNet based model to analyse medical scans like Xrays,MRI scans and etc.

### AI-Powered Analytics Engine for Sales Forecasting & Market Simulation Github

Designed a modular AI system for product-centric businesses to simulate financial success, forecast sales revenue, and optimize supply chain strategies.

Integrated enterprise-focused process simulations similar to real-world ERP workflow modeling.

- -Achieved 92%+ R<sup>2</sup> in sales forecasting using SHAP-enhanced deep neural networks across youth, adult, and collector segments.
- -Identified underserved market segments using a BiLSTM-based persona alignment engine, uncovering  $2 \times$  engagement potential in certain segments (e.g., Yeezy Premium, Veja Low).
- -Built a Dynamic Price & Strategy Simulator to model outcomes of product pricing, launch timing, and drop strategy using 5-year synthetic dataset (100,000+ rows).
- -Integrated 50+ engineered features including sentiment, hype score, and competitor influence into model pipeline. Tech Stack: Python, TensorFlow, SHAP, Optuna, BiLSTM, Flask (for deployment-ready APIs)

#### **LEADERSHIP**

- Student Placement Coordinator @ Manipal University Jaipur Very limited and talented students are given the opportunity to become SPCs for the Directore of Corporate Relations and Placements(DCRP) and assist the students for their placements.
- Managing Director @ Cyber Space Club In the Executive committee of Cyberspace Club Only Cyber Security Club of Manipal Univeristy Jaipur.Managaing a Working Team of Over 60 and over 500 Memebers.

## RESEARCH PAPERS / PATENTS

• Blockchain-based Optimization Algorithm for Secure IoT Communication Using AMQP Developed a blockchain-based algorithm integrated with AMQP to enhance IoT communication by addressing decentralized trust, efficient message handling, and resource constraints. Utilized lightweight encryption, ML-based anomaly detection, and dynamic consensus to improve latency, throughput, and security. Applicable in smart homes, healthcare, and industrial IoT. Published – IEEE ICAIHC2025-411 Link

#### **CERTIFICATIONS / LICENSES**

CCNA: Introduction to Networks - (Cisco Networking Academy)

CCNA: Switching, Routing, and Wireless Essentials- (Cisco Networking Academy)

Introduction to Cybersecurity -(Cisco Network Academy)

Foundations: Data, Data, Everywhere (Google)

Introduction to Generative AI (Google)

Introduction to security principles in cloud computing(Google Cloud)

Strategies for cloud scurity risk management(Google Cloud)

Linux Commands & Shell Scripting (IBM)

SQL:Querying Databases (IBM)

Ordered Data Structures (University of Illinois at Urbana-Champaign)