

# HARKIRAT SINGH

(<https://harkirat.site>)

(577, L-2 Prem Street, M.K. Road, Khanna, Punjab, 141401)

## PERSONAL DETAILS

**Gender:** Male

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**GitHub:** <https://github.com/h-s14>

## EDUCATION

**Thapar Institute of Engineering and Technology**

Bachelor of Computer Science and Engineering (*Pursuing*)

**Expected Year of Graduation – 2025**

(Patiala, Punjab)

**S.C.C.L.H. Jain Public School**

Class - XII

**Year of Passing - 2021**

(Khanna, Punjab)

**Om Prakash Bansal Modern School**

Class - X

**Year of Passing – 2019**

(Gobindgarh, Punjab)

## PROJECTS

**Block Chain Crypto Transfer Application | HTML, CSS, JS, React, Solidity** ([GitHub](#))(<https://coin.harkirat.site>)

- **Developed Responsive Front – End:** Designed and Implemented a responsive and user-friendly interface for transferring crypto currency which seamlessly integrates with Meta-Mask wallet.
- **Implemented Smart Contract:** Created robust functionality to transfer Ethereum using blockchain securely using smart – contract.
- **Test Network Deployment:** Deployed the working Application with Smart Contract on Sepolia ETH test network.

**Thermal Infrared Object Detection for Aerial Crafts | Python, Flask, OpenCV, YOLOv8** ([GitHub Link](#))

- **Data Handling:** Managed file uploads and HTML rendering using Flask
- **Data Visualization:** Integrated Flask routes for displaying processed images and video streams with detection results.
- **Model Inference:** Integrated Flask routes for displaying processed images and video streams with detection results.

**Hospital Management System | MongoDB, ExpressJS, React, NodeJS**

([GitHub](#)) | (<https://healthflow.harkirat.site>) | (<https://dash-healthflow.harkirat.site>)

- **Security and Data Management:** Implemented user authentication and role-based access to ensure data security and privacy.
- **User Interface and Experience:** Created a responsive and Dynamic user interface with React, enhancing the overall user experience and operation efficiency.
- **Admin Management Dashboard:** Designed and implemented a centralized dashboard for administrators, enabling efficient management of applications and doctor profiles.
- **API and Integration:** Ensured seamless communication between the front-end and back-end through well designed APIs, making requests over **HTTPS** to the backend supporting a cohesive and efficient architecture.

**Breast Cancer Detection | Python, Pandas**

([GitHub Link](#))

- **Dataset:** Worked with the Breast Cancer Wisconsin (Diagnostic) dataset for tumor classification.
- **Data Preprocessing:** Cleaned, normalized data, and selected relevant features using Pandas.
- **Algorithms Applied:** Implemented SVM, Kernel SVM, Random Forest, and Logistic Regression models.
- **Model Evaluation:** Evaluated models using Accuracy, Precision, Recall, and F1-Score for comparison.

- **All the web projects are deployed on private AWS server using CI/CD pipelines with GitHub actions workflows.**

## TECHNICAL SKILLS

**Languages:** C, C++, Java, HTML, CSS, JavaScript, SQL, Python, Solidity, Rust

**Developer Tools:** VS Code, Android Studio, Google-Colaboratory, GitHub Actions Workflow, Docker

**Technology and Frameworks:** GitHub, AWS, React, ExpressJS, NodeJS