Computer Science and Engineering Graduate Hamirpur, Himachal Pradesh India +91-8351063305 <u>druchir30@gmail.com</u> <u>Github/ruchirdhmn</u> <u>linkedin.com/in/ruchir-dhmn</u>

#### **EDUCATION**

Degree/Certificate	Institute/School(Board)	CGPA/Percentage	Year
B.Tech	Jaypee University of Information Technology, Solan	6.97	2021-2025
Senior Secondary	Acme Public School Hamirpur (H.P.B.O.S.E)	89.4%	2021
Secondary	Him Academy Public School Vikasnagar (CBSE)	72.2%	2019

#### **EXPERIENCE**

#### • National Institute of Technology

Machine Learning Intern

- Created a CNN-based diabetic retinopathy detection system achieving 95% classification accuracy.
- Applied advanced image preprocessing techniques such as histogram equalization and data augmentation.
- Integrated the model into a user-friendly interface for potential clinical usage.

#### **PROJECTS**

#### Restaurant Photo Tagging using CNN

[Github]

- Built a convolutional neural network leveraging VGG16 transfer learning to automatically tag restaurant photos by cuisine or food category.
- Designed a preprocessing pipeline with image normalization, resizing, and augmentation to improve model robustness against variations in lighting and angle.
- Implemented class distribution analysis and visualization to ensure dataset balance and guide augmentation strategies.
- Achieved high classification accuracy while reducing training time using pre-trained ImageNet weights.
- Provided interpretable results with visualization of predictions and sample outputs, enabling practical use in food-tech and restaurant applications.

#### Diabetic Retinopathy Detection using CNN

[Github]

- Developed a deep learning model based on CNN ResNet-50 architecture to detect diabetic retinopathy from retinal images.
- Implemented advanced preprocessing including image normalization, resizing, and augmentation.
- Utilized transfer learning to reduce training time while maintaining high accuracy significantly.
- Integrated Grad-CAM visualizations to provide explainable AI outputs for medical professionals.
- Achieved a strong balance between precision and recall, ensuring reliability in healthcare diagnostics.

#### Image Search Engine

[Live Demo]

- Built a webpage using HTML, CSS, and JavaScript to search and display images via API integration.

#### • Real Estate Webpage

[Live Demo]

- Designed a webpage for Real Estate using HTML, CSS, and JavaScript.

# • Encryption and Decryption of Text

[Live Demo]

- Developed a web application for text encryption and decryption using AES, DES, and Vigenère Cipher algorithms.

• Portfolio [Live Demo]

- Created a portfolio for myself using HTML, CSS and Javascript.

#### TECHNICAL SKILLS

- Programming Languages: HTML, CSS, Javascript, C/C++
- Database: MySQL
- Core Concepts: OOPs, DSA
- Operating Systems: macOS, Windows
- Tools: Git, Github, VS Code, Figma, Wordpress, Adobe Photoshop, iMovies, Microsoft Office
- **Soft Skills:** Teamwork, Adaptability, Communications

June. 2024 - July. 2024 Hamirpur(H.P.), India

# Ruchir Dhiman

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### **CERTIFICATES**

- Infosys Certificate in Network Security
- Infosys Certificate in Python Foundation
- Infosys Certificate in Data Science
- Infosys Certificate in Applying Predictive Analysis

## **ACHIEVEMENTS**

- Authored a chapter titled "Chatbots in Healthcare" in the book "3D Modeling in Healthcare: Transforming Medicine with Advanced Technologies", accepted for publication after review.
- Secured first place in the Bio-Hackathon at JUIT organised by JYC.
- Bronze Star in Python, and Problem Solving (HackerRank)