

Hardik Chhipa

📍 Chennai ✉ hardikchhipa28@gmail.com ☎ +91-9460626737 in Hardik Chhipa 🌐 FRAGGERR

Experience

Research Intern 🌐

IIT Jodhpur

Rajasthan, IN
June 2024 – Aug 2024

- Developed [MLVICX](#) to address challenges in extracting insights from medical data.
- Solved image analysis inefficiencies in MIMIC using BYOL for better representations.
- Used BERT, Bio-BERT, and SQL to extract and analyze large-scale healthcare data in real time.
- Improved model robustness with VICReg for optimized loss calculation.

Building [ClearSight.AI](#) 🌐

SRMIST, KTR

Chennai, IN
May 2023 – Present

- Building **ClearSight.AI**: Real-Time Diabetic Retinopathy Detection on Edge Devices.
- Tackled resource constraints and healthcare accessibility challenges using Knowledge Distillation, Mixup augmentation, and Dense CNNs. Achieved **98.39%** accuracy.
- Achieved balance in high diagnostic accuracy while minimizing computational resource usage.
- Presented findings at IEEE conferences: [ICOECA 2024](#) (March) and [ICDCC 2024](#) (November).

Education

SRM Institute of Science and Technology

BTech, Computer Science Engineering

Sept 2021 – June 2025

- CGPA: [8.8/10.0](#)

Projects

DAKSHAAB: Multilingual AI Chatbot

[GitHub](#)

- Developed a multilingual AI healthcare chatbot to enhance patient triage and specialist recommendations.
- Tools Used: Python, Transformers (Hugging Face), PyTorch, Pandas, Scikit-learn, NLTK, Matplotlib, Plotly, Git.

Incident Intelligence Platform

[GitHub](#)

- Built a live Incident Intelligence Platform to track issues, detect patterns, and forecast risks using historical data. Integrated advanced analytics for trend analysis and real-time monitoring with instant alerts for faster resolution.
- Tools Used: Python, Pandas, NumPy, PyTorch, NLP, BART, StreamLit.

Campus Aide

[GitHub](#)

- Solved issues in emergency reporting, safety alerts, and campus transportation by developing an app with real-time reporting, vehicle tracking, interactive visualizations, and user feedback integration.
- Tools Used: Node.js, Express.js, React.js, Tailwind CSS, Firebase, Ionic, TypeScript, Geolocation API.

Publications

- [Refining Diagnostic Accuracy in DR Detection via Mixup Augmentation Techniques](#) ICDCC 2024
- [MLVICX: Multi-Level Variance-Covariance Exploration for Chest X-ray SSL](#) arXiv 2024
- [Next-Generation Electronics Packaging Technologies for High-Performance Applications](#) ASME 2024
- [Light Weight CNN Based on Knowledge Distillation for DR Detection](#) ICOECA 2024

Achievements

- [Philips Ideathon](#) (Winner)
- [Natwest Hack Bake-Off](#) (Runners-up)
- [Salesforce AI Associate](#)-(Certification)
- Digizest Hackathon (Participation)

Skills

Languages: [Python](#), Java, C++, SQL, JavaScript, HTML, CSS, SQL.

Frameworks & Libraries: [React.js](#), [Redux](#), [Node.js](#), [Express.js](#), [MongoDB](#), [Django](#), Software Development Life-cycle tools.

Cloud Technologies: [AWS Compute](#) (Lambda, EC2), S3, SageMaker, Firebase, [GitHub](#).

Data Science: [TensorFlow](#), [Pytorch](#), [Numpy](#), [Pandas](#), [Sklearn](#), [Keras](#), Matplotlib, Plotly, Seaborn, OpenCV, NLTK, Transformers, Spark, Hadoop, Tableau, PowerBI, ETL and Data Warehousing, familiar with data structures, data validation, improving model/data schema documentation.