SRIL SHUKLA

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SUMMARY

Aspiring **deep learning** and **machine learning** professional with a strong foundation in computer science and hands-on project experience in developing innovative machine learning applications. Passionate about leveraging machine learning for **advanced data analysis.**

EDUCATION

VELLORE INSTITUTE OF TECHNOLOGY (CHENNAI)   2023 - 2027
- BTECH in Computer Science and Engineering - Core
- CGPA - 9.20 (4th Semester)
- Highest GPA- 9.49 (2nd Semester)

N L DALMIA HIGH SCHOOL   2008 - 2023
- 12th Board Marks : 94.6%
- 10th Board Marks: 97.00%
- 4th Highest in the entire school (12th boards)

PROJECTS

DraftEase – Floor Plan to CAD Conversion Tool
- Collaborated with my team M^2.js and built a web-based tool that converts floor plan images into editable CAD files (DXF) without relying on heavy AI models awarded **2nd price** at Spectrum'25 hackathon.
- Designed and implemented the **custom floorplan generation algorithm** based on user-defined room dimensions and layout preferences.
- Handled image **preprocessing** and **data filtering** to optimize tracing accuracy and DXF output compatibility with tools like **AutoCAD and LibreCAD**.

CloudCrypt - A file encryption service for cloud
- Designed a secure encryption system using **Google Cloud KMS** and **AES-256** to protect sensitive company data as a group project with my peers.
- Stored the encrypted data in **Google Cloud Storage buckets**.
- Implemented a **hierarchical key structure** for managing access controls and encryption keys.
- Incorporated **role based access control** with **request access feature** and server managed encryption.

Hybrid CNN-Transformer for Chest X-ray Classification
- Developed a CNN-Transformer hybrid architecture achieving **96.33% F1-score** on COVID-19, pneumonia, and normal classification using **NIH/Kaggle datasets**.
- Combined multi-scale CNN features with Transformer self-attention to model both local patterns and global lung dependencies.
- Reduced compute by **41%** vs. pure Transformers and outperformed 5 state of the art models with up to **9.33% F1-score gain**.

DeepDefend - Deepfake Detection & Reporting Platform

- Built DeepDefend which qualified for **top 90** in Hackcelerate hackathon 2025 out of **150 teams** and **3000 applications.**
- Developed an AI model achieving **87%+ accuracy** for real-time deepfake detection on images and videos.
- Led model training and data preprocessing using PyTorch on Manjil Karki's deepfake dataset with over **100,000+ images.**
- Collaborated with my team to build a responsive **UI in React, Tailwind CSS, and Framer Motion** with support for dark mode and live visualizations.
- Integrated facial landmarks, and batch reporting with **Flask backend** to streamline user experience.

SKILLS

- **Technical Skills:** Web Development, Data Structures and Algorithms, Machine Learning & Deep Learning.
- **Coding Languages:** Python, C++, C, Java, HTML, CSS, JavaScript
- **Frameworks and Libraries:** TensorFlow, PyTorch, Scikit-Learn, Flask, Numpy, Pandas, MatplotLib, Google API
- **Other Skills:** Team Work, Communication, Problem Solving

KEY ACHIEVEMENTS

- Won **2nd place** at Spectrum'25 an **inter-college** hackathon with over **2000+ applicants** and **70+ selected teams** with my brilliant team M^2.js
- Made it to round 3 (**top 90**) of Hackcelerate Hackathon 2025 with over **3000+** applicants and **150+** selected teams

EXTRACURRICULAR

- Represented the delegate of Indonesia in VITC INTRAMUN'23, collaborated on the winning resolution paper by leading strategic lobbying efforts.