

# SESHADRINATHAN KRISHNAN

Machine Learning Engineer/Full Stack Web Developer  
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[Linkedin](#) | [CodeChef](#) | [HackerRank](#) | [GitHub](#) | [Portfolio](#)

## EDUCATION

### Indian Institute of Technology Madras

BS Data Science and Applications

CGPA: 6.7

Chennai, India

2022 - 2026

### SRM University

B.Tech Computer Science Engineering with AIML

CGPA: 9.3

Tiruchirapalli

2022 - 2026

## SKILLS

Programming Languages: Python, C++, C, HTML, JavaScript, CSS  
Libraries/Frameworks: Tensorflow, Pytorch, Tkinter, OpenCV, React, Tailwind CSS, Scikit-Learn, Langchain, Flask, Jinja, Next.js, Firebase  
Tools / Platforms: Git, Github, Figma, tinkercad  
Databases: MySQL, SQLAlchemy

## PROJECTS / OPEN-SOURCE

### MultiModal Deep Learning for enhanced Skin Disease classification using ViT

*Pytorch, Tensorflow, Plotly*

- > This is a computer vision model that can detect and classify skin lesion images. The model is trained on the PAD-UFES-20 benchmark dataset which is a smartphone image dataset. The model takes dual stream inputs, one being the lesion and an extensive metadata about the patient, lesion attributes and lesion class being the other. The model is based on the ViT architecture, Upon multiple levels of fine tuning, the model attained an accuracy of 87.98%.

### Hello-An Influencer Sponsor engagement application

*HTML, Jinja2, CSS, JS, Flask*

- > This is a full stack application that I built in IIT Madras, this application lets Sponsors create ad campaigns, search for influencers and request for ads, vice versa influencers can also register themselves, search and request for ads. Further chat assistance is provided between the clients. This application was developed with templates using Jinja2. SQLAlchemy is used as a database toolkit with 4 classes.

### Reinforcement Learning based Trading bot

*React, Flask, OpenAI Gym, MetaMask, Ethereum, Solidity*

- In this project we fine tuned a PPO model on a finance dataset from yahoo finance and trained it in OpenAI Gym, we deployed the model using React and Flask as a working full stack application which is responsive to picking api calls
- A Smart contract was created on Solidity and deployed on an Ethereum Virtual Machine using a crypto wallet from metamask

### Quiz Master - V2

*Vue.js, Flask, Redis, Celery*

A multi-role exam preparation platform with admin and user interfaces. Admins create subjects/chapters/quizzes, while users attempt timed quizzes with score tracking. Features include Redis caching, Celery batch jobs for daily reminders/monthly reports, and CSV exports. Built with Flask backend, VueJS frontend, and SQLite database. This is again an application that I built in IIT madras for the 4 credit course Modern Application development II

### Edgeshield-A wearable band to prevent Construction accidents | [Link](#) *Pytorch, Blender, Tinkercad*

- > Created a prototype of a wearable band using an Arduino Uno R3 which alerts on dangers and created a 3d model in blender
- > Trained and Deployed separate Deep Learning Model to detect falls, proximity near heavy machinery and detect PPE kits respectively

- ->Inferences from the Deep Learning model are fed into a dashboard which sends signals to the Arduino Uno R3 Microcontroller

### **Low Light Media Enhancement using U-NET**

*Pytorch,Matplotlib,Scikit Learn*

- ->This model uses a U-net Architecture to enhance visually drained media. It begins with adding artificial noise to the image distributed randomly across the target image by altering the HSV values of the image. Once the noise is added, A Convolutional Neural Network is used to identify the noise and remove it, and is trained on a dataset which has both its low and well lit counterparts.

### **CERTIFICATIONS**

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- Machine Learning - **KTH- Royal Institute of Technology, Sweden**
- Supervised Machine Learning - Stanford University and Deeplearning.ai.
- SQL Advanced Skill Certification - Hackerrank.
- Database Structures and Management - Meta.
- CSS Skill certification - Hackerrank.