# Jose Moti | CE17B118 Indian Institute of Technology Madras



# **EDUCATION**

Program	Institution	%/CGPA	Year of completion
Dual Degree in Civil Engineering	Indian Institute of Technology Madras, Chennai	7.63	2022
XII	Vijayagiri Public School	95	2017
X	Greenvalley Public School	100(full A1)	2015

# SCHOLASTIC ACHIEVEMENTS

- Rank 3816 in JEE Advanced 2017
- Rank 3780 in JEE Mains 2017

# **COURSE WORK**

- Machine Learning Course from Coursera, Andrew Ng
- Deep Learning Specialization from Coursera, Andrew Ng
- Systems Engineering for Deep Learning
- Deep Learning for Computer Vision
- Deep Learning for Natural Language Processing

- Probability and Statistics
- Differential Equations
- Python, Flask, HTML Youtube courses.

# **LABS**

 Not involved in any lab yet but have done several assignments on Computer Vision through Google Colab notebooks. Familiar with AWS, GCP.

# **SKILLS**

- Python
- Pytorch
- Tensorflow / Keras
- Flask
- HTML
- CSS
- Numpy, Scipy, Pandas
- Matplotlib, Seaborn, scikit-learn
- ONNX
- C/C++
- AVX Programming
- Linux
- Machine Learning
- Deep Learning CV/ NLP

# **PROJECTS**

# Worked on Kaggle competitions

- Flowers classification Classification of flowers using TPUs Repo Link
- Melanoma cancer classification Won Silver medal Used Efficientnets with LGB stacking Repo Link
- Sentiment analysis Finding a part of a sentence responsible for a given sentiment Repo Link

#### • Data Analysis on Transaction Dataset

- EDA, Clustering, Predicting items bought together using KNN
- See <u>Repo Link</u>

#### • Basic Flask Microblog app

- Created a basic microblogging app with the Flask framework.
- See Repo Link

#### • CNN Experiments on CIFAR-10 Dataset

- O Hyperparameter tuning, occlusion test, filter analysis Repo Link
- o Trying different regularization techniques Repo Link
- o Transfer Learning and Augmentations Repo Link

# • Alexnet optimization with AVX

- Using C++ and AVX instruction tried to optimize the time taken in a single forward pass.
- O See Repo Link

# Hyperparameter Tuning with MLFLOW and Pruning

- Hyperparameter tuning with Fashion MNIST Dataset
- Finding best Pruning configurations
- See <u>Repo Link</u>

# Worked on ICCV 2019 paper SinGAN: Learning a Generative Model from a Single Natural Image

- Tried to play with the hyperparameters, add extra loss functions, and change the model architecture for better outputs.
- o Report Repo Link

# Basic Coursera projects

- Deploy a TensorFlow model with Flask <u>Link</u>
- Diagnosis with Support Vector Machines <u>Link</u>

#### • Worked on MLPERF inference benchmarks.

- o Converted Pytorch pre-trained models to ONNX and ran them in the web browser using JavaScript.
- o Report Repo Link

# PROFESSIONAL EXPERIENCE

# POSITIONS OF RESPONSIBILITY

• Envisage Coordinator - Shaastra 2019 - IIT Madras

(June 2018- Jan 2019)

- Involved creating a Speed painting Robot which was able to process any image a paint it using the punching mechanism
- Applied for a patent for this project.

# **PUBLICATIONS**

• No publications yet.

# **OBJECTIVE**

- With a background in Data Science and engineering, I have a great passion for scaling up the ML/DL knowledge I have for real-world applications.
- Did most of my learning from free online courses and Kaggle Discussions. I have got a good experience in coding with Python and have a knack of quickly picking up new languages/frameworks.