Mathan Prasanna Kumar

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Education

Government College of Engineering, Salem,Tamil Nadu.   Graduation : 2022

Bachelor of Engineering in Civil Engineering   CGPA :8.40/10

Skills

Languages: C++, Python, JavaScript, HTML, CSS

Technologies: Node.js, Tensorflow, Keras, Opencv, Express.js, flask, Git, PostgreSQL

Projects

Face Recognition System   (github.com/facewebapp)

- Similar to attendance recognition system, users can punch in and out their attendance through webcam in a website and it is deployed in Amazon ec2 instance.
- User data is not stored inside the database ,only the embedding of the user image is stored which is more secure and the user data can never be mishandled.
- Using FaceNet embedding of the image to be recognized is created and verified against the reference image
- Similarity of both input and reference image is measured using cosine similarity distance.

JPEG Artifact Remover   (github.com/JPEG)

- A generator model ,which will remove the JPEG artifacts caused by the compression.
- Div2k dataset is used for training and generator consists of two residual in residual block and discriminator comprised of six convolutional layers, each utilizing LeakyReLU activation function.
- Whole model is trained with NoGan approach and eventually on the test dataset model produces 0.67 SSIM and 0.23 PSNR.

MNIST Handwritten Recognition   (github.com/mnist)

- Implemented a CNN model which will recognize the handwritten digits with an accuracy of 99.67%
- Sequential model structure is followed for the layers architecture and Batch normalization is applied after each layer.
- For Evaluation K fold cross validation used and followed by the Categorical cross entropy loss.

Activities

- Solved 500+ problems in Geeks For Geeks.   (gfg/mathan)
- Built a Portfolio Website using HTML and CSS.
- Built a Face detector using VGG16 combined with custom model.   (github.com/detector)
- Built a top 50 IMDB movies scraper using python.

Experience

SSV Constructions   **Dec-2022**

- Worked on the execution of Post tensioned cables and supervised labours to implement the laying ,stressing and grouting. Successfully executed laying and tensioning of the cables without bursting.
- Planning of labour and materials is handled without imposing any delay to the project.

Maruthi Builders (intern)   **Jan-2022**

- Field assessment and Quality checking was done material, execution of work and implemented good practices as per the plan and design.