

# Mathan Prasanna Kumar

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## Education

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**Government College of Engineering, Salem, Tamil Nadu.**

Graduation : 2022

**Bachelor of Engineering in Civil Engineering**

CGPA :8.40/10

## Skills

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

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

## Projects

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### Face Recognition System

([github.com/facewebapp](https://github.com/facewebapp))

- Similar to attendance recognition system, users can punch in and out their attendance through webcam in a website.
- 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.

### Face Detection

([github.com/facedetection](https://github.com/facedetection))

- LFW dataset is used and data annotation is done for training ,testing and validation images .Applied preprocessing to the images before training.
- VGG16 Network is used with the combination of custom layers and training and evaluation is implemented by subclassing keras model class.
- Model will return a array containing classification prediction and bounding box coordinates and loss is for localization of bounding boxes is calculated by determining the delta between the truth and the predicted values.

### MNIST Handwritten Recognition

([github.com/mnist](https://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](https://github.com/gfg/mathan))
- Built a Portfolio Website using HTML and CSS.
- Built a Generative model for removing JPEG artifacts. ([github.com/jpeg](https://github.com/jpeg))
- Built a top 50 IMDB movies scraper using python.

## Experience

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### 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.
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