# **Debangan Mandal**

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## Objective

To utilize my technical skills and provide a professional service to customers by applying and honing my knowledge and working in a challenging and motivating working environment.

### **Experience**

## Indian Institute of Technology, Kharagpur

16/08/2021 - 18/10/2021

Research Internship

I have worked under the guidance of professor, Dr. Pabitr Mitra, in a computer vision project, based on leaf counting and leaf image segmentation.

FeyNN labs

Machine Learning Intern

Working on real life projects and making projects based on market segmentation and customer behaviour identification and verification.

## Education

<ul> <li>Delhi Public School, Newtown</li> <li>High School (ICSE)</li> <li>92%</li> </ul>	2017
<ul> <li>Indira Gandhi Memorial High School Senior secondary (CBSE) 88.3%</li> </ul>	2019
<ul> <li>Vellore Institute of Technology, Vellore, 3rd year</li> <li>B.Tech in Computer Science and Applications</li> <li>7.92</li> </ul>	2023

#### **Skills**

- Machine Learning
- Image processing
- Artificial Intelligence
- Data Science
- Data Structure and Algorithms

#### **Projects**

#### Image Segmentation using Random Forest

I have used the image of sandstone under a microscope and segmented its various parts and saved the image. The algorithm I used was Random Forest Classifier. I used Gabor Filter and Canny, Roberts, Scharr, Sobel, and Prewitt edge detectors. I also have used Gaussian Median and Variance filters for feature extraction and make a database for segmentation.

Link: https://github.com/DebanganMandal/image-segementation-using-traditional-machine-learning-algorithm

# • Binary Image Classification of Malarial Cells

In this project, I have used a LeNet-5 CNN model to classify infected and uninfected cells. I also have done some data augmentation on the images.

https://github.com/DebanganMandal/Malarial-cell-Classification-using-CNN

# • Image Segmentation using Unet

The goal of semantic image segmentation is to label each pixel of an image with a corresponding class of what is being represented. Because we're predicting for every pixel in the image, this task is commonly referred to as dense prediction.

https://github.com/DebanganMandal/Image-Segmentation-using-Unet

# • Encoder-Decoder Based Machine Translation using Attention Model

The aim of our project is to automate the language translation problem to overcome the language barrier among countries and also states within the country. Our model will perform the various features translations required for achieving our aim. The model recognizes text in one language to another user defined language to communicate in an expressive manner.

https://github.com/DebanganMandal/Machine-Translation-using-attention-models

#### Chatbot

A chatbot is an intelligent piece of software that is capable of communicating and performing actions similar to a human. Chatbots are used a lot in customer interaction, marketing on social network sites and instantly messaging the client. There are two basic types of chatbot models based on how they are built; Retrieval based and Generative based models.

https://github.com/DebanganMandal/Chatbot

#### **Additional Information**

I have done courses on machine learning, data science and artificial intelligence.

I have 5 star rating in Hackerrank for C++, Python and problem solving.

I am not an all work person, I do take sports and a have a few other interests. I have played state level badminton, and do have a keen interest in football and its management