# Nikhil Surya Mukhi

MACHINE LEARNING ENTHUSIAST WEB SCRAPER TECHNICAL BLOGGER COMPUTER VISION

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### Education

B.I.T. Sindri, Dhanbad (Birsa Institute Of Technology)

B.Tech In Computer Science And Engineering (2014-2018)

- Languages: Python, JavaScript.
- Frameworks: Node.js, Express.js, Flask, Scikit Learn, Keras, Scrapy, Numpy.
- o Operating Systems: Linux (Underwent course of RHSCA and RHCE)

### **Achievements**

Smart India Hackathon 2018 (Ministry of Road Transport and Highways) Nagpur.

Smart parking system with real time vehicle monitoring (9th Position in finals)

- Coded and Designed the image processing unit in Python, OpenCV and Pytesseract (OpenCV for object segmentation and Pytesseract as OCR engine to resolve number plate to text)
- Wrote an API in Express.js to transfer Images clicked from camera module in Raspberry Pi to Server which processes the image
- Wrote Python Script to click images in an interval of 1 sec and to compute changes in the image. It sends images to the server only when it detects changes (by calculating the euclidean distance.)

India Innovation Challenge Design Contest 2018

Completely digitalized paperless Smart Classes Systems (Eliminated in Quarter Finals)

- Created a Web application using Nodejs. and Express.js for the Smart Classes System.
- Wrote modules to convert elements drawn in HTML canvas to PDF.
- Wrote Chat module for students and teachers for students to query and clear doubts during classes

# **Projects**

Object detection in Image using Convolutional Neural Networks

College Project under guidance of Prof. S.C. Dutta (H.O.D. Deptt. C.S.E. B.I.T. Sindri)

- Written in Python using Keras Framework
- Used VGG16 (Visual Geometry Group aka OxfordNet) using Imagenet weights of 1000 classes
- Retrained Neural Network to handle more classes of Images

Note App using Flask and Peewee

#### Hobby project

- Note making app written in Flask (Micro web Framework),Peewee, Micawber(to embed media from websites like YouTube)
- · Added Pagination support

## **Technical Blog**

https://iamfiasco.github.io

- Wrote posts on machine learning tutorial and deep learning on topics like Gradient Boosting, SVM, Convolutional Neural Networks
- Wrote posts on explaining the working of my projects in detail