

# SOUMYAJIT BEHERA

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## EXPERIENCE

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### Junior ML Engineer (Omdena)

June 2020 - August 2020

- Assembled the data from various social media platforms using Twitter, Reddit. Interpreted the collected text using word-clouds and various plots with respect to time and various other factors that affect the change of sentiments of youth.
- Utilized the data to find the issues using Topic Modelling and Building models using LSTM, BERT to predict the sentiments of the youth.

## EDUCATION

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### Birla Institute of Technology

IMSC Maths and Computing *GPA: 7.1 (Till 4th sem)*

Ranchi, India

July 2018 - May 2023

## PROJECTS

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### AI for social good

*PyTorch, Tensorflow, Flask, NLTK, Scikit-Learn*

Developed a model applying **Natural Language Processing, Deep Learning(LSTM), and Machine Learning(Random Forest and Naive Bayes)** to predict if a social media post of a person is associated with conditions such as **Suicidal Ideation or Depression** or other mental health conditions.

### Plant-AI

*PyTorch*

Performed Leaf **Image classification** for Recognition of Plant Diseases using multiple types of **CNN** Architecture and **Transfer Learning (VGG-19 and Resnet)**, For the detection of Infected Leaf from healthy leaves and consequently helping the increase in crop yield.

### Face Recognition and Emotion Detection

*Tensorflow, Keras, OpenCV*

Developed a model applying **image classification** to grayscale images using multilayer **CNN** for the detection of various **human emotions**. And utilizing **OpenCV** to **recognize the face** and using the model to predict the emotions.

### Other Projects

*PySyft, PyTorch, Scikit-Learn*

Implemented **Federated Learning** on MNIST Dataset shared between two **virtual workers** later performing **secure gradient aggregation** to receive a new model from the aggregated gradients.

Content-based Movie **Recommender system**.

**Text Generation** using **LSTM**; **Image Generation** using **GANs**

## PROGRAMMING SKILLS

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<b>Strongest Areas:</b>	Algorithms, Data Structures, Deep Learning, Natural Language Processing
<b>Languages:</b>	C++, Python(Basic)
<b>Tools &amp; Frameworks:</b>	PyTorch, NLTK, Scikit-Learn, Git, Keras, Tensorflow, Flask, Node.js
<b>Database:</b>	MongoDB
<b>Platforms:</b>	Heroku, Zeit

## EXTRACURRICULAR ACTIVITIES

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### Pantheon-2019 (Technical Fest of BIT Mesra)

Web Developer

Worked on creating the frontend-end of the website using Bootstrap, Javascript.

### Bitotsav-2020 (Cultural Fest of BIT Mesra)

Web Developer

Operated on developing the frontend end of the website using Bootstrap, Javascript and backend APIs using Node.js

### Hack-A-Bit - 2019

Participant

### Code - Break 1.0

Top 10 teams among 50 teams.