# Ishwar Sawale

Computer Vision & Deep Learning Researcher

ishwarsawale@gmail.com | ishwarsawale.com | ishwarsawale | ishwarsawale | @ishwarsawale

## Summary

I have 3.3+ years of experience in Data Science. I am currently working with Mindstix Software Labs as a Data Scientist/ML Engineer.
I am Research Engineer focus on data-driven solutions for Deep Learning, Computer Vision and Chat Bot based systems.
Before Mindstix, I was working with Coriolis Technologies Pvt Ltd for two years as a Machine Learning Engineer.
I also have completed 115+ courses related to Machine Learning, AI from Udemy, Coursera, Datacamp, & LinkedIn Learning.

## Education

### Diploma in Big Data Analytics
*Pune, India*

CDAC-ACTS PUNE — *Aug 2015 - Feb. 2016*

- Achieved grade A with 70.00%

### Bachelor of Engineering
*Pune, India*

University Of Pune — *Aug. 2011 - May. 2014*

- Achieved Distinction with 69.33%

## Work Experience & Responsibility

### Mindstix Software Labs
*Pune, India*

Data Scientist — *Feb. 2018 - PRESENT*

- Computer Vision Research
- Question & Answer ChatBot Research
- Deep Learning Algorithm Research
- Algorithm Design

### Coriolis Technologies
*Pune, India*

Member of Technical Staff — *Mar. 2016 - Feb. 2018*

- Deep Learning Algorithm Design
- License Plate Recognition, Face Recognition

## Projects

### Chatbot HR
*Mindstix Software Labs Project*

Python, TensorFlow, RASA — *Feb 2018 - Present*

- I have created the Natural Language understanding framework for entity recognition, intent classification & dialogue management.
- I have developed a context-based retrieval framework to retrieve data from web pages.
- I have trained Natural Language Understanding model using Tensorflow word embeddings. For Dialogue management, I have developed the LSTM type of Neural Network.

### Color Constancy Algorithm
*Mindstix Software Labs Project*

Python, OpenCV, Dlib, CNN — *Feb 2018 - Feb 2019*

- I have developed an algorithm to approximate the accurate skin tone color of the person using one image.
- This algorithm uses a propriety method to color correct the image. Accuracy of the developed algorithm compared with spectrophotometer is less than 3.5 deltaE.

### Face Recognition System
*Mindstix Software Labs Project*

Facenet, Dlib, SVM, KNN, Python — *Feb 2018 - April 2018*

- I have used Transfer learning for Face recognition using pre-trained models like Facenet, Dlib.
- I have developed a web application to collect face data from users & sends collected data to the pipeline for further processing.

### License Plate Recognition System
*Coriolis Tech Project*

OpenCV, Deep Learning, Python — *March 2016 - Feb 2017*

- I have developed the License Plate Recognition system using Convolution Neural Network.
- I have used the object detection pre-trained model to detect the car. For License plate recognition, I have trained Convolution Neural Network which generated bounding box after the discovery.
- For letter & alphabet detection, I have implemented CNN architecture which predicts each character independently of others.

## Skills & Courses

| | |
|---|---|
| **Tools** | Git, LaTeX |
| **Stacks** | MongoDB, MySQL |
| **Languages** | Python |
| **Machine Learning** | Tensorflow, Keras, Pytorch |

**PyImageSearch**

- PyImageSearch Gurus Graduate by PyImageSearch

**Coursera**

- Structuring Machine Learning Projects by deeplearning.ai
- Neural Networks and Deep Learning by deeplearning.ai
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization by deeplearning.ai
- Recommender Systems: Evaluation and Metrics
- Nearest Neighbor Collaborative Filtering
- Matrix Factorization and Advanced Techniques
- Introduction to Recommender Systems: Non-Personalized and Content-Based
- Fundamentals of Digital Image and Video Processing by Northwestern University
- PCA by Imperial College London
- Multivariate Calculus by Imperial College London
- Linear Algebra by Imperial College London
- Mathematics for Machine Learning, a 3-course specialization by Imperial College London
- How Google does Machine Learning by Google Cloud

**Datacamp**

- Machine Learning with Python Track
- Data Scientist with Python Track
- Data Manipulation with Python Track
- Data Analyst with Python Track
- Importing & Cleaning Data with Python Track
- Data Scientist with R Track
- Data Analyst with R Track
- Importing & Cleaning Data with R Track
- Machine Learning with R Track