

# Ishwar Sawale

COMPUTER VISION & DEEP LEARNING RESEARCHER

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## 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

CDAC-ACTS PUNE

- Achieved grade A with 70.00%

Pune, India

Aug 2015 - Feb. 2016

### Bachelor of Engineering

UNIVERSITY OF PUNE

- Achieved Distinction with 69.33%

Pune, India

Aug. 2011 - May. 2014

## Work Experience & Responsibility

### Mindstix Software Labs

DATA SCIENTIST

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

Pune, India

Feb. 2018 - PRESENT

### Coriolis Technologies

MEMBER OF TECHNICAL STAFF

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

Pune, India

Mar. 2016 - Feb. 2018

## Projects

### Chatbot HR

PYTHON, TENSORFLOW, RASA

- 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.

Mindstix Software Labs Project

Feb 2018 - Present

### Color Constancy Algorithm

PYTHON, OPENCV, DLIB, CNN

- 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.

Mindstix Software Labs Project

Feb 2018 - Feb 2019

### Face Recognition System

FACENET, DLIB, SVM, KNN, PYTHON

- 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.

Mindstix Software Labs Project

Feb 2018 - April 2018

### License Plate Recognition System

OPENCV, DEEP LEARNING, PYTHON

- 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.

Coriolis Tech Project

March 2016 - Feb 2017

## 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