

Ishwar Sawale

DATA SCIENTIST · MACHINE LEARNING RESEARCHER

☎ (+91) 82-3744-2227 | ✉ ishvarsawale@gmail.com | 🌐 ishvarsawale.com | 📷 ishvarsawale | 📺 ishvarsawale | 🐦 @ishvarsawale

Summary

I have 2.11+ years experience in Data Science. Currently, I am working with Mindstix Software Labs as Data Scientist & Computer Vision Researcher. At Mindstix I am working on Recommendation, ChatBot & Computer Vision Systems. Prior to Mindstix, I was working with Coriolis Technologies Pvt Ltd for 2 years as 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

Pune, India
Aug 2015 - Feb. 2016

- Achieved grade A with 70.00%

BE E & TC

UNIVERSITY OF PUNE

Pune, India
Aug. 2011 - May. 2014

- Achieved Distinction with 69.33%

Diploma in E & C

MSBTE, MUMBAI

Mumbai, India
May. 2008 - Aug. 2011

- Achieved Distinction with 85.38%

Work Experience & Responsibility

Mindstix Software Labs

DATA SCIENTIST

Pune, India
Feb. 2018 - PRESENT

- Recommendation Systems for Retail Business
- ChatBot Framework
- Face Recognition Systems
- Algorithm Design
- Computer Vision Systems

Coriolis Technologies

MEMBER OF TECHNICAL STAFF

Pune, India
Mar. 2016 - Feb. 2018

- Developer & Scrum Master for Cloud Team
- Rails Backend Development for Orchestration tool
- Development of Ansible, Chef and Puppet configuration managers
- License Plate Recognition, Face Recognition

Projects

Color Constancy Algorithm

Mindstix Software Labs Project

PYTHON, OPENCV, DLIB, CNN

Aug 2018 - Current Project

- Algorithm development to get true skin color from the image, independent illumination conditions
- Color difference delta E between photo spectrometer and the developed algorithm is < 2.38

Product Learning ChatBot

Mindstix Software Labs Project

TENSORFLOW, DEEP LEARNING, PYTHON

June 2018 - Dec 2018

- A user can ask questions specific product & based on user's query intents, entities are predicted
- Based on intents real-time data about the product is fetched from the database

DevOps Chatbot

Mindstix Software Labs Project

NLP, LSTM, RASA, PYTHON, FLASK

Feb 2018 - Aug 2018

- This chatbot helps the user to create a deployment pipeline
- Based on user inputs build can be pushed on a certain environment, get status of build etc Based on user inputs build can be pushed on certain environment, get status of build etc

User-User Collaborative Filtering

Mindstix Software Labs Project

NEO4J, PYTHON

Feb 2018 - May 2018

- Personalized recommender algorithm which learn from past agreements to predict future agreements
- It uses the concept of similarity in order to identify users
- Instead of traditional approach of matrix factorization, Graph database is used

User-Item Content Based Filtering

Mindstix Software Labs Project

TENSORFLOW, PYTHON

Feb 2018 - May 2018

- Singular Value Decomposition (SVD) is used to estimate the size of the basket that we want to predict
- In the second step, we will predict n products which we believe that user will buy in his next order
- TensorFlow based implementation of SVD

Face Recognition System

Mindstix Software Labs Project

FACENET, DLIB, SVM, KNN, PYTHON

Feb 2018 - April 2018

- From Facenet and Dlib face embedding extracted
- Based on obtained embedding three different classification models are trained
- To tackle unknown person problem and increase accuracy, these three models stacked together

License Plate Recognition System

Coriolis Tech Project

OPENCV, DEEP LEARNING, PYTHON

March 2016 - Feb 2017

- This project was used to auto-detect License Plate in car and fetch license number
- I have used OpenAlpr library along with handcrafting features for License Plate detection
- Custom OCR was trained and used to predict each individual number from license plate

Orchestration Tool for Chef, Puppet, Ansible

Coriolis Tech Project

RAILS, MONGO, CHEF, PUPPET, ANSIBLE,

REST API

Sept 2016 - Feb 2018

- I was working as Team Lead and Lead Developer for this project
- Use case is - client have certain products that need to be managed using configuration manager
- Using either Chef, Puppet or Ansible, we can perform job like install agent, register agent, upgrade agent etc

Facial Key Point Detection

[Open Source Contribution](#)

TENSORFLOW, KERAS, PYTHON

Sept 2018

- Facial Key point detection model trained on Kaggle Dataset.
- Trained Various models Using Keras & Tensorflow, with multiple optimizers.

Neural Style Transfer App

[Open Source Contribution](#)

CNN, PYTHON, KIVY

July 2018

- This app is a TensorFlow implementation of the paper A Neural Algorithm of Artistic Style by Leon A. Gatys, Alexander S. Ecker, and Matthias Bethge.
- The paper presents an algorithm for combining the content of one image with the style of another image using convolutional neural network.

Prodcutivity ChatBot

[Open Source Contribution](#)

NLU, FLASK, SLACK

June 2018

- Track How much time spend on which task, based on given input this bot extracts intent & slots using NLU
- Once itent & entity predicted, then detected task is added into DB

Face Recognition Library

[Open Source Contribution](#)

FACENET, PYTHON

Mar 2018

- Face Recognition working with one API call
- Based on Facenet, available as pip package

Real Time Face Recognition

[Open Source Contribution](#)

PYTHON, TENSORFLOW, FACENET, KERAS

Sept 2017

- This project was to detect and recognise faces in real time(in video)
- Apart from Traditional methods of face recognition, I have used embedding of two faces as measure to differentiate them
- Pretrained model from Facenet is retrained for my dataset
- I have taken video frame at x milliseconds
- After that, created embedding and compared with model for each frame

Festival Recognition App

[Open Source Contribution](#)

JAVA, TENSORFLOW, ANDROID

Aug 2017

- This is an android app, which detects type of Indian Festival after taking image from Camera or gallery
- For this app I have collected thousands of images for Holi, Diwali, Eid, Birthday, Marriage
- Then I used Inception V4 model from ImageNet and retrained it on above dataset
- This retrained model is optimised for Android by rounding graph and making it compitable for android platform

Hand written digits classification

[Open Source Contribution](#)

JAVA, TENSORFLOW, ANDROID, KERAS

July 2017

- This is an android app, which detects number drawn by user between 0 to 9
- I have used MNIST dataset for training two diffenet model with Tensorflow and Keras
- User can draw any digit and prediction from two models are given

Tools

Git, LaTeX

Stacks

MongoDB, MySQL, Neo4J

Languages

C, Python, Java, Go, R

Frameworks

Ruby On Rails

Web Technologies

HTML

Machine Learning

Tensorflow, Keras, Pytorch, OpenAI

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