

Subodh Lonkar



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Medium: <https://learner-subodh.medium.com/>

arXiv:
<https://arxiv.org/search/cs?searchtype=author&query=Lonkar%2C+S>

I'm a young, motivated & smart working Computer Engineer passionate about cutting-edge technology and solving real world business problems. Eager to convert data into business achievements. I strongly believe that Data, when glued with Mathematics and best suitable Machine Learning & Deep Learning algorithms possess the key to solve even the hardest of the problems in quick time. Know more at <https://learner-subodh.github.io/>.

SKILLS

Mathematics, Statistics, Machine Learning, Deep Learning, Data Analytics, Python, C/C++, SQL, Google Cloud Platform, Computer Vision, Natural Language Processing, Recommendation Systems, TensorFlow, Keras, PyTorch.

EDUCATION

- **B.E. Computer Engineering**
Savitribai Phule Pune University (formerly known as the University of Pune)
07/2015 – 06/2019 Pune, India
✓ CGPA:
9.02 – In the Top 3.33% of the Computer Engineering department.

RESEARCH PROJECTS / CASE STUDIES

- **WSDM – KKBox's Music Recommendation Challenge (Recommendation System)**
12/2020 – 01/2021
 - ✓ Case Study of a Music Recommendation Challenge held in one of the Kaggle Competitions. Achieved a Kaggle Score which placed me in the top 0.7% for this challenge.
 - ✓ **Source:** <https://www.kaggle.com/c/kkbox-music-recommendation-challenge>
 - ✓ **Blog:** <https://medium.com/swlh/kkbox-music-recommendation-challenge-3cfe609773a0>
 - ✓ **Web App** for the Overview of EDA: <https://share.streamlit.io/learner-subodh/streamlit-example/kkbox.py>
 - ✓ **GitHub:** <https://github.com/learner-subodh/Maschinelles-Lernen-und-Datenwissenschaft/tree/master/KKBox%20Music%20Recommendation%20Challenge>
- **Facial Expressions Recognition Challenge (Computer Vision)**
05/2021 – 05/2021
 - ✓ Case study for recognizing facial expressions in given input images.
 - ✓ My deep learning model beats the 1st place solution in the Kaggle competition: <https://www.kaggle.com/c/facial-keypoints-detector/overview> & the 2nd place solution in the Kaggle competition: <https://www.kaggle.com/c/challenges-in-representation-learning-facial-expression-recognition-challenge/overview> on both Public & Private Leaderboards.
 - ✓ Almost as good as the **State-of-The-Art** solutions for Facial Expressions Recognition.
 - ✓ **Published Research Paper:** <https://arxiv.org/abs/2107.08640>
 - ✓ **Dataset:** <https://www.kaggle.com/deadskull7/fer2013>
 - ✓ **Video Demo:** https://www.youtube.com/watch?v=Tx-iHP9KY5w&ab_channel=SubodhLonkar
 - ✓ **GitHub:** <https://github.com/learner-subodh/streamlit-sharing>
- **Classification of Images of Food Items (Computer Vision)**
02/2021 – 02/2021

- ✓ Classified images of various food items using 3 deep learning models, namely, MobileNetv2(light), Resnet50(medium) & Inceptionv3(heavy). Dataset used is the Food-101 dataset.
- ✓ All 3 models delivered an accuracy of over 90% on the test data.
- ✓ **Video Demo:** <https://www.youtube.com/watch?v=5alQyPT33Aw&t=63s>
- ✓ **GitHub:** <https://github.com/learner-subodh/Maschinelles-Lernen-und-Datenwissenschaft/tree/master/Image%20Classification%20using%20Food-101%20Dataset>

WORK EXPERIENCE

o Associate Scientist, Data Science

XPO Logistics, Inc.

08/2021 – Present

Pune, India

- ✓ Roles & Responsibilities:

Contributing in areas stretching to Geospatial analysis, Machine Learning & Computer Vision.

Perform EDA to identify various shortcomings, areas of improvement and propose feasible solutions.

o Analytics Automation Associate, R&D

Community Brands

11/2019 – 08/2021

Pune, India

- ✓ Roles & Responsibilities:

Worked on different phases of Machine Learning like data preprocessing, data analysis and visualization, feature engineering & feature selection, model building and deployment.

Presented results to the Manager & the Director of R&D in forms of 6-pager reports / presentation.

Actively contributed towards the business growth by leveraging ML to identify & acquire potential customers.

Got felicitated with various awards for excelling in roles and responsibilities, also delivered various technical seminars to other teams in the R&D department.

o Software Developer – Machine Learning, R&D

Community Brands

08/2019 – 11/2019

Pune, India

- ✓ Tools & Technologies:

Python, SQL, Machine Learning, Deep Learning, GitHub, NumPy, Pandas, NLP, OOP, SAFe Agile methodology.

BLOGS & RESEARCH PUBLICATIONS

- o **Research Paper:** Facial Expressions Recognition with Convolutional Neural Networks- <https://ijisrt.com/facial-expressions-recognition-with-convolutional-neural-networks>, <https://arxiv.org/abs/2107.08640>
- o **Start It up:** Training an MLP From Scratch Using Backpropagation for Solving Mathematical Equations- <https://medium.com/swlh/training-an-mlp-from-scratch-using-backpropagation-for-solving-mathematical-equations-91b523c24748>
- o **Start It up:** WSDM – KKBox's Music Recommendation Challenge: <https://medium.com/swlh/kkbox-music-recommendation-challenge-3cfe609773a0>
- o **Analytics Vidhya:** Dimensionality Reduction by Stochastic Gradient Descent: <https://medium.com/analytics-vidhya/dimensionality-reduction-by-stochastic-gradient-descent-f617ebde3c1b>

ACHIEVEMENTS

- o GATE CS/IT 2019 Qualified.
- o Ranked 6th in the Indian Engineering Olympiad 2019.
- o Received Spot Awards in Aptify, a certificate of appreciation for excelling in assigned tasks & responsibilities.

COURSES & CERTIFICATIONS

- o Stanford CS229 and CS231n
- o IIT Bombay Spoken Tutorial: C, C++
- o Python 101 for Data Science, IBM
- o Participated in Guinness World Record Event for Building Face Recognition Application conducted by GUVI Geek Networks, IIT Madras Research Park.

HOBBIES

- o Prototyping ideas & implementing research papers, learning new tools/technologies followed with its implementation.
- o Solving challenging problems from Kaggle, publishing blogs & research articles.
- o Participating in technical webinars/conferences focusing areas from computer science & machine learning.