Subodh Lonkar



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**GitHub:** <https://github.com/learner-subodh>

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

**arXiv:** [https://arxiv.org/search/cs?searchtype=author&query=Lonk](https://arxiv.org/search/cs?searchtype=author&query=Lonkar%2C%2BS) [ar%2C+S](https://arxiv.org/search/cs?searchtype=author&query=Lonkar%2C%2BS)

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 about me at [https://learner-subodh.github.io/.](https://learner-subodh.github.io/)

# SKILLS

**Mathematics, Statistics, Machine Learning, Deep Learning, Data Analysis & Visualization, Python, SQL, Google Cloud Platform, Computer Vision, Natural Language Processing, Recommendation Systems, TensorFlow, Keras**

# 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

# WORK EXPERIENCE

* **Associate Scientist, Data Science**

## XPO Logistics, Inc.

08/2021 – 09/2022 Pune, India

* + Roles & Responsibilities:

Key contributor to a Multi-Million Dollar Computer Vision project which applies OCR to Delivery Receipts and identifies the accessorial(s) used. Saved the company’s revenue by *USD 12M* in a year’s time.

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

Perform EDA to identify various shortcomings, areas of improvement and propose feasible solutions. Identified & reported a leakage of *USD 4M* per year in case of No Freight/Empty Pickup Stops through extensive EDA which was taken into consideration and keenly looked into by the Vice President of Technology.

# 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.

# 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.

# 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-](https://github.com/learner-subodh/Maschinelles-Lernen_und_Datenwissenschaft/tree/master/KKBox%20Music%20Recommendation%20Challenge)

[Lernen\_und\_Datenwissenschaft/tree/master/KKBox%20Music%20Recommendation%20Challenge](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-](https://www.kaggle.com/c/challenges-in-representation-learning-facial-expression-recognition-challenge/overview) [challenge/overview](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>

# BLOGS & RESEARCH PUBLICATIONS

* **Research Paper:** Facial Expressions Recognition with Convolutional Neural Networks- [https://ijisrt.com/facial-](https://ijisrt.com/facial-expressions-recognition-with-convolutional-neural-networks) [expressions-recognition-with-convolutional-neural-networks](https://ijisrt.com/facial-expressions-recognition-with-convolutional-neural-networks), <https://arxiv.org/abs/2107.08640>
* **The Startup:** 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-](https://medium.com/swlh/training-an-mlp-from-scratch-using-backpropagation-for-solving-mathematical-equations-91b523c24748) [91b523c24748](https://medium.com/swlh/training-an-mlp-from-scratch-using-backpropagation-for-solving-mathematical-equations-91b523c24748)
* **The Startup:** WSDM – KKBox’s Music Recommendation Challenge: [https://medium.com/swlh/kkbox-music-](https://medium.com/swlh/kkbox-music-recommendation-challenge-3cfe609773a0) [recommendation-challenge-3cfe609773a0](https://medium.com/swlh/kkbox-music-recommendation-challenge-3cfe609773a0)
* **Analytics Vidhya:** Dimensionality Reduction by Stochastic Gradient Descent: [https://medium.com/analytics-](https://medium.com/analytics-vidhya/dimensionality-reduction-by-stochastic-gradient-descent-f617ebde3c1b) [vidhya/dimensionality-reduction-by-stochastic-gradient-descent-f617ebde3c1b](https://medium.com/analytics-vidhya/dimensionality-reduction-by-stochastic-gradient-descent-f617ebde3c1b)

# ACHIEVEMENTS

* GATE CS/IT 2019 Qualified.
* Ranked 6th in the National Engineering Skill Development 2019.
* Received Spot Awards in Aptify, a certificate of appreciation for excelling in assigned tasks & responsibilities.
* Received the Rising Star Award for exceptional performance and for valuable contributions made within first 6 months of joining in XPO Logistics.

# COURSES & CERTIFICATIONS

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