

# KARTIK VASUDEV SHENOY



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[github.com/kartik2112](https://github.com/kartik2112)

## SKILLS

### Programming Languages:

Python, C++, Java

### Machine Learning:

Keras, Tensorflow, Scikit-learn, Pandas, NLTK, NumPy, OpenCV, Matplotlib, Matlab

### Web:

LAMP, MEAN stacks, Flask, PHP, ReactJS, MySQL, MongoDB, Oracle SQL, Cassandra DB

### Tools:

AWS (EC2, RDS, S3, EKS, Comprehend), Git, Firebase, Heroku, Google Colab

### Others:

Android Programming

## EDUCATION

### B. Tech Computer Engineering

GPA: 9.56 / 10 (Department Rank 1)

K. J. Somaiya College of Engineering, Mumbai, IN

Aug 2014 – June 2018

### HSC (Maharashtra Board)

93.69 % (May 2014)

### SSC (Maharashtra Board)

95.64 % (May 2012)

## PROFESSIONAL EXPERIENCE

### Barclays Global Service Centre, Pune, IN

July 2018 – Dec 2020

Graduate Analyst

Pune, IN

- Designed a process automation system that is helpful in enabling quick response to tweets using sentiment analysis and ontologies. Also, designed a chatbot prototype for generating quick responses to common queries.
- Created a classifier application using ML algorithm Latent Dirichlet Allocation to extract insights from iOS and Android application reviews and customer complaints.
- Bagged the Barclays award of Stewardship for automating the generation of delivery metrics of more than 30 teams and creating multiple such dashboards, saving around 150 man-hours annually.
- Translated VISA, Mastercard mandates into system code which processes millions of financial transactions.

### Virtual Labs, IIT-Bombay

Mar 2017 – Aug 2017

Web Development Intern

Mumbai, IN

- Developed a website for the online demonstration of machine learning concepts such as neural networks, learning rules and optical character recognition. This lab has won the Global Online Laboratory Consortium International Lab Award. *Tech Stack: HTML, JS, PHP.*
- Led a team of three interns for the development of the assigned projects in this lab (hosted on IIT-B's '[Virtual Labs](#)' site).

## SELECTED PROJECTS

### VeriSign [\[Demo Link\]](#) [\[Github Link\]](#)

- Deployed an application to verify signatures by comparing with the original one and detect forgery.
- Achieved an accuracy of 96 % by training a Convolutional Siamese Network using the concept of One-Shot Learning.

### Pneumonia Detection from Chest X-Ray Scans [\[Github Link\]](#)

- Trained a CNN on Chest X-Ray Scans with histogram equalization achieving an accuracy of 94.56 % and a recall score of 0.97.

### Sign Language Translator [\[Android App\]](#) [\[Github Link\]](#)

- Managed a team of four to develop an Android application for recognising Indian Sign Language used by the hearing- and speech-impaired.
- Designed HMMs for Gesture Recognition from gesture videos with 97.23 % accuracy and k-NN for Hand Pose Recognition with 99.7 % accuracy.

### Feed-Forward Neural Network Implementation in NumPy [\[Github Link\]](#)

- Used a self-implemented feed-forward neural network using back-propagation with mini-batch gradient descent, learning rate annealing, regularization and variable momentum for training over MNIST dataset achieving 96.81 % accuracy.

## PUBLICATIONS

- ["Real-time Indian Sign Language \(ISL\) Translation"](#), 9th International Conference on Computing, Communication and Networking Technologies (ICCCNT). Published in IEEE Xplore, October 2018.
- ["An Effective Pixel-Wise Approach for Skin Colour Segmentation - Using Pixel Neighbourhood Technique"](#), International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), 2018.

## CERTIFICATIONS

[Deep Learning Specialization \(Coursera\)](#) | [Machine Learning \(Stanford Online\)](#)

Kaggle Courses: [Intro to Machine Learning](#) | [Intermediate Machine Learning](#) | [Feature Engineering](#)