# KARTIK SHENOY





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#### **SKILLS**

#### **Programming Languages:**

Python, C++, Java

# **Machine Learning:**

Keras, Tensorflow 2, Scikit-learn, Pandas, NumPy, OpenCV, Matplotlib, Matlab

#### **Platforms:**

LAMP, MEAN stacks, Flask, Android Programming, ReactJS

#### **Tools:**

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

# **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 - Present

**Graduate Analyst** 

Pune. IN

- Delivered a web portal for helping employees with free bandwidth and appropriate skillsets to contribute to tasks requiring assistance saving more than 200 man-hours
- Delivered an automation pipeline for execution of multiple programs on legacy systems saving more than 900 man-hours of development efforts annually.
- Was involved in the entire project life cycle of translating VISA, Mastercard business requirements into technical requirements, development, and its deployment.

# 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**

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