SOHAN VASANT KAMBLE

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# EDUCATION

**VISHWAKARMA INSTITUTE OF TECHNOLOGY (VIT)** Dec 2021 - Present

B.Tech, Electronics and Telecommunication Engineering , Pune,India

**JAWAHAR NAVODAYA VIDYALAYA PALUS** Aug 2019 - Mar 2020

Higher Secondary School Sangli,India

Percentage - **77.00%**

**JAWAHAR NAVODAYA VIDYALAYA PALUS** Apr 2017 - May 2018

Senior Secondary School Sangli,India

Percentage - **86.00% TECHNICAL SKILLS**

**MACHINE LEARNING AND DATA ANALYSIS:** Numpy, Pandas, Matplotlib, Scikit, OpenCV

**DEEP LEARNING:** Tensorflow**,** PyTorch, Convolutional Neural Network (CNN), Artificial Neural Network (ANN)

**LANGUAGES:** Java, C, C++, SQL, Python, PHP

**WEB DEVELOPMENT:** HTML, CSS, JavaScript, Bootstrap, NodeJS, ReactJs

**TOOLS:** Git, MATLAB, Google Collab, Pycharm, XAMPP

**DATABASE**: MySQL, MongoDB

# EXPERIENCE

**MITACS GLOBALINK RESEARCH INTERNSHIP** June 2024 – Present

* Involved in a significant research project at IIT Kanpur as a part of literature survey, dedicated to conducting detailed **case studies** on the **employability trend** of engineering students, particularly for Computer and Mechanical engineering students.
* created a dataset with 110 students and 20 faculties responses after handing them a survey form.

**RESEARCH INTERN - IIT KANPUR** August 2023 – Sept 2023

* Involved in a significant research project at IIT Kanpur as a part of literature survey, dedicated to conducting detailed **case studies** on the **employability trend** of engineering students, particularly for Computer and Mechanical engineering students.
* created a dataset with 110 students and 20 faculties responses after handing them a survey form.

**CODSOFT | MACHINE LEARNING INTERN** June 2023 **-** July 2023

# Credit Card Fraud Detection

* Developed credit card fraud detection system with Isolation Forest and Local Outlier Factor algorithms, achieving 99.73% and 99.66% accuracy respectively.

**GitHub Link**:- [Credit Card Fraud Detection.](https://github.com/SahilSalve001/CodSoft-Machine-Learning/blob/main/Credit%20Card%20Fraud%20Detection.ipynb)

* Implemented SMS Spam Detection using Python libraries, achieving 97.97% accuracy with Multinomial Naive Bayes algorithm.

**GitHub Link**:- [Spam SMS Detection.](https://github.com/SahilSalve001/CodSoft-Machine-Learning/blob/main/SMS%20Spam%20Detection%20Using%20ML.ipynb)

* Built credit card churn prediction model with TensorFlow's Keras, utilizing Artificial Neural Network architecture for 79% accuracy.

**GitHub Link**:- [Customer Churn Prediction.](https://github.com/SahilSalve001/CodSoft-Machine-Learning/blob/main/Customer_Churn_Prediction_Using_ANN.ipynb)

# PROJECTS

**EMOTION TRACKER WRISTBAND**

**Python, Scikit-Learn, Supervised Machine Learning**

* Developed a wristband for real-time emotion tracking, using machine learning techniques.
* Collected emotional data from sensors measuring **Heart Rate**, **EDA** (Electrodermal Activity), and **Skin Temperature**, providing a comprehensive view of the user's physiological state.
* Used **SVM (Support Vector Machine)** algorithm, achieved model accuracy of **0.94**. Wristband enables users to monitor their emotions over time, gaining valuable insights from the sensor data.
* GitHub Link: - [Emotion-Tracker-Wristband](https://github.com/Sohan-Kamble/Emotion-Tracker-Wristband.git)

# DEEP CNN IMAGE CLASSIFIER WITH ANY IMAGES

**Python, Convolutional Neural Network (CNN), TensorFlow** .

* Implemented Deep CNN Image Classifier with ANY Images, which extracts intricate **features (sad, happy)** from images, enabling highly accurate image classification.
* Used **TensorFlow**, a leading deep learning framework, to construct and train the **CNN** model, optimizing its performance.
* Achieved an impressive classification accuracy exceeding **95%**.
* GitHub Link: - [Deep-CNN-Image-Classifier](https://github.com/Sohan-Kamble/Deep-CNN-Image-Classifier-with-ANY-Images.git)

# CNN IMPLEMENTATION FOR PNEUMONIA DETECTION

**Python, Keras, Kaggle kernel**

* Developed an advanced model for early-stage pneumonia diagnosis from chest X-ray images using convolutional neural networks (CNN) and achieved a remarkable **94.56%** test **accuracy** rate. The model additionally displayed an impressive **recall score of 0.97**, highlighting its effectiveness in reducing false negatives.
* **5863** images from **two classes** (Normal and Pneumonia) in the Kaggle Chest X-Ray photos (Pneumonia) dataset were used to build an accurate classifier.
* Several CNN configurations, including variations with Convolutional, **MaxPooling**, **Dropout**, **Batch Normalization**, and **Fully Connected layers**, were examined and fine-tuned.
* GitHub Link: - [CNN-implementation-for-Chest-X-Rays-Pneumonia-Detection](https://github.com/Sohan-Kamble/CNN-implementation-for-Chest-X-Rays-Pneumonia-Detection..git)

# PUBLICATIONS

**Published the paper in IJARIIľ.**

Details:-

## Supply and Demand Control System for Farmer’s Market

Authors:- S Kamble, S Phadke, S Mulgir, S Pawar, K Solanke.

Published the paper titled **Supply and demand control system for farmer’s market** in International Journal of Advance Research, Ideas and Innovations in Technology, 03 Dec 2022.

**Research Paper Link**:- [Research Paper: Supply and demand control system for farmer’s market - published by Sohan](https://www.ijariit.com/manuscript/supply-and-demand-control-system-for-farmers-market/)

[Kamble in IJARIIT Journal](https://www.ijariit.com/manuscript/supply-and-demand-control-system-for-farmers-market/)

# Published the paper in TIJER.

Details:-

## Revolutionizing Irrigation: Machine Learning Enabled Smart Irrigation System.

Authors: - Dr. Prof. V Jabade, S Kamble, P Somkuwar, A Sonawane.

Published the Paper titled as **Revolutionizing Irrigation: Machine Learning Enabled Smart Irrigation System** in TIJER

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**Research Paper Link**: - <https://www.tijer.org/papers/TIJER2305181.pdf>