Devansh Shukla

Python Developer

- As a CSE student with expertise in AI, Machine Learning, Python, and SQL, I am seeking a challenge that will allow me to utilize my skills to solve real-world problems and gain valuable industry experience.
- Hardworking and enthusiastic job seeker with strong organizational skills eager to secure entry-level position. Ready to help team achieve company goals.
- Organized and dependable candidate successful at managing multiple priorities with a cheerful outlook. Willingness to take on added responsibilities to meet term goals.

Education

2020-10-Current	**BTECH CSE: Computer Science** Dy Patil International College – Pune
2018-04-2020-05	**Junior College: Science Education** Taywade college of Arts, Commerce, Science – Nagpur
2016-05-2018-04	**High School: Science Education** Mother Teresa Mission Higher Secondary School – Kanpur

Certifications

2021-03	**Microsoft AI Participation Certificate**
2021-07	**MATLAB Onramp Training Certificate**
2021-08	**MATLAB Fundamentals Training Certificate**
2022-01-2022-11	**Content Moderator at Nyus**
2022-05-2022-07	**Internship on Machine Learning at Learn & Build**
2023-03-Current	**Internship on Deep Learning at Teachnook**

Skills

Python Proficiency

Machine Learning

Data Science

Neural Networks

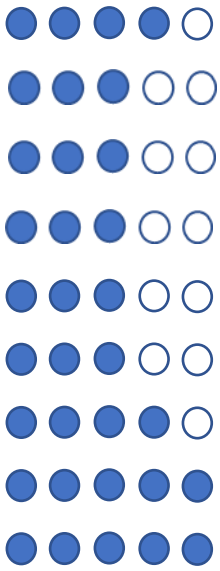
SQL Proficiency

MATLAB Proficiency

Problem Solving

Critical Thinking

Teamwork and Collaboration



Projects

Project Title: - CIFAR-10 Image Classification using Convolutional Neural Networks.
Skills Learned: - Pandas, Keras (Models, Datasets, Layers), CNN, One-hot-encoding.
Client: - College Project
Role: - Back-End Developer
Start Date: - 5 - March - 2023
End Date: - 27 - April – 2023

Project Description: -

This project involves building a convolutional neural network (CNN) model to classify images from the CIFAR-10 dataset, which consists of 60,000 32x32 colour images in 10 classes. The code imports the required libraries, loads the dataset, and pre-processes the data by normalizing it and converting the labels to one-hot encoded format.
The model architecture consists of two convolutional layers with ReLU activation, followed by a max pooling layer, a flatten layer, and two fully connected layers with ReLU and SoftMax activation, respectively. The model is compiled with the Adam optimizer and categorical cross-entropy loss and is trained for 20 epochs with a batch size of 64. Finally, the model is saved in JSON format.
This project can be extended to other image classification problems by changing the input shape and number of classes in the last layer, and tuning the hyperparameters such as number of filters, kernel size, learning rate, and number of epochs.
The model is then loaded into the GUI. The GUI window includes an option to upload an image, and once the image is uploaded, the user can click a button to classify the image. The model will then predict the animal class in the image and display the result on the GUI window. The program is written in Python, and it uses various libraries, such as tkinter, PIL, NumPy, and Keras. This project is helpful for those who are interested in learning how to build a GUI for image classification tasks or want to use a pre-trained model to classify images without writing code from scratch.

Project Responsibilities: -

- Developed a convolutional neural network (CNN) model to classify images from the CIFAR-10 dataset, which consists of 60,000 32x32 colour images in 10 classes.
- Imported the required libraries, loaded the dataset, and pre-processed the data by normalizing it and converting the labels to one-hot encoded format.
- Defined the model architecture with two convolutional layers with ReLU activation, followed by a max pooling layer, a flatten layer, and two fully connected layers with ReLU and SoftMax activation, respectively.
- Compiled the model with the Adam optimizer and categorical cross-entropy loss and train it for 20 epochs with a batch size of 64.
- Saved the trained model in JSON format.

Project Title: - Predicting Heart Disease using KNN Algorithm
Skills Learned: - pandas, seaborn, matplotlib. pyplot, NumPy, and various modules from scikit-learn such as train_test_split, classification report, confusion matrix, StandardScaler, and KNeighborsClassifier.
Client: - Learn and Build
Role: - Lead Developer
Start Date: - 10 - July - 2022
End Date: - 28 - July – 2022

Project Description: -

This project involves building a machine learning model using the K-Nearest Neighbours (KNN) algorithm to predict whether a person has heart disease based on several factors such as chest pain type, slope of the peak exercise ST segment, number of major vessels coloured by fluoroscopy, and Thallium values.
The project involves data pre-processing, normalization of data, splitting the data into training and testing sets, selecting the optimal number of neighbours, building the KNN model, and saving the model for future use. The user can input the values for numerous factors to get the prediction of whether they have heart disease or not. The project demonstrates the power of machine learning in predicting and preventing heart disease.

Project Responsibilities: -

- Developed a machine learning model using the K-Nearest Neighbours (KNN) algorithm
- Predicted whether a person has heart disease based on several factors such as chest pain type, slope of the peak exercise ST segment, number of major vessels coloured by fluoroscopy, and Thallium values
- Pre-processed the data and normalize it.
- Split data into training and testing sets.
- Selected the optimal number of neighbours and build the KNN model.
- Saved the model for future use.
- Model Allows users to input values for numerous factors to get the prediction of whether they have heart disease or not.
- Displayed the power of machine learning in predicting and preventing heart disease.

Project Title: - Predicting Personal Loan Approval using Machine Learning Algorithms
Skills Learned: - pandas, seaborn, matplotlib. pyplot, NumPy, scikit-learn's decision tree classifier, random forest classifier, support vector machine (SVM), logistic regression, and various scikit-learn model selection, metrics, and tree visualization functions.
Client: - Learn and Build
Role: - Lead Developer

Start Date: - 19 - June - 2022
End Date: - 7 - July - 2022

Project Description: -

This machine learning project aims to predict whether a person is eligible for a personal loan or not based on numerous factors such as age, income, education, mortgage, etc. The project uses different algorithms like Logistic Regression, Decision Tree, Random Forest, and Support Vector Machine (SVM) to predict the outcome.
The project first starts with pre-processing the dataset by dropping unnecessary columns, handling negative values in the experience column, and exploring the dataset using data visualization techniques. The project then moves onto Machine Learning models, where it uses different algorithms to build models for the given data. The models are evaluated using different metrics, such as accuracy, confusion matrix, classification report, and ROC curve.
The last step in the project is building a decision tree to visualize the key features affecting personal loan approval. The project concludes by finding the feature importance of each variable in the dataset.
The project can be useful for banks and other financial institutions to predict which customers are likely to take a personal loan. This can help financial institutions make better decisions and offer more targeted products and services to their customers.

Project Responsibilities: -

- Developed a machine learning model to predict personal loan eligibility based on numerous factors.
- Use pre-processing techniques to clean and prepare the dataset for analysis.
- Explore the dataset using data visualization techniques to gain insights into the data.
- Implement various algorithms such as Logistic Regression, Decision Tree, Random Forest, and Support Vector Machine to build models for the given data.
- Evaluate the models using different metrics such as accuracy, confusion matrix, classification report, and ROC curve.
- Use decision tree visualization to identify key features affecting personal loan approval.
- Determine the feature importance of each variable in the dataset.
- Provide insights to banks and other financial institutions to help them make better decisions and offer more targeted products and services to their customers.

Project Title: - Company Profit Prediction using Machine Learning Model in Python.
Skills Learned: - pandas, matplotlib, seaborn, scikit-learn.
Client: - Learn and Build
Role: - Lead Developer
Start Date: - 3 - June - 2022
End Date: - 15 - June - 2022

Project Description: -

In this project, I built a machine learning model in Python that predicts a company's profit based on its expenses using a linear regression algorithm. Linear regression is a simple and powerful machine learning technique used for predicting continuous numerical values based on input features.
The goal of this project was to provide a useful tool for business owners to estimate their potential profit based on their expenses and revenues. By inputting the company's expenses, such as salaries, marketing, and rent, the model can predict the expected profit for the given time period.
To accomplish this, I first gathered a dataset of different companies' expenses and profits from Kaggle. The dataset was then pre-processed, which involved cleaning the data, handling missing values, and transforming the data into a suitable format for the machine learning model. With the help of the Matplotlib and Seaborn libraries, I drew graphs and charts to figure out the best learning model suitable for this dataset. Through the graphs, I observed a correlation between different values in the dataset, which is best suited for the linear regression model.
Next, I used the linear regression algorithm through the Scikit-learn library to build a model that can accurately predict the company's profit based on its expenses. The model was trained using the pre-

processed dataset, and its performance was evaluated using various metrics such as the accuracy score and confusion matrix.
Once the model was trained and evaluated, I built a simple user interface that allows the user to input their company's expenses and get an instant profit prediction. The user interface was built using Pandas, making it easy to use and visually appealing.
Overall, this project provides a valuable tool for business owners to estimate their potential profit based on their expenses. It demonstrates the power of machine learning and its applications in real-world business scenarios.

Project Responsibilities: -

- Developed a machine learning model in Python to predict a company's profit based on its expenses using linear regression algorithm.
- Pre-processed the dataset of different companies' expenses and profits from Kaggle by cleaning the data, handling missing values, and transforming the data into a suitable format for the machine learning model.
- Utilized Matplotlib and Seaborn libraries to draw graphs and charts to identify the best learning model suitable for the dataset and observed a correlation between different values in the dataset
- Used Scikit-learn library to implement the linear regression algorithm and built a model that accurately predicts the company's profit based on its expenses
- Evaluated the performance of the model using various metrics such as accuracy score and confusion matrix
- Developed a simple user interface using Pandas to allow the user to input their company's expenses and get an instant profit prediction, making it easy to use and visually appealing
- Demonstrated the power of machine learning and its applications in real-world business scenarios, providing a valuable tool for business owners to estimate their potential profit based on their expenses

Project Title: - Python based Virtual Assistant
Skills Learned: - Speech_Recognition, pyttsx3, pywhatkit, datetime, Wikipedia, web browser, requests, Beautiful Soup.
Client: - College Project
Role: - Lead Developer
Start Date: - 12 - April - 2022
End Date: - 20 - May - 2022

Project Description: -

This project aims to create an AI-powered personal assistant that can perform a wide range of tasks based on voice commands. The project will utilize the following libraries: Speech Recognition, pyttsx3, pywhatkit, datetime, Wikipedia, web browser, requests, and Beautiful Soup.
The assistant will be able to understand natural language commands given by the user and respond appropriately using text-to-speech technology. It will be able to perform a range of tasks, such as:

- Search the web for information on a given topic.
- Play music or videos on YouTube.
- Set reminders and alarms.
- Get the current time and date.
- Open websites or applications
- Provide information on the weather or news.

To achieve these functionalities, the project will use Speech Recognition to convert speech to text, pyttsx3 to convert text to speech, and pywhatkit to perform actions such as playing YouTube videos or searching the web. The datetime library will be used to provide the current date and time, while Wikipedia will be used to provide information on a wide range of topics. The project will also use web browser to open websites and requests and Beautiful Soup to scrape web pages for information.

Overall, this project will display how Python can be used to create an intelligent virtual assistant that can understand natural language commands and perform a range of useful tasks.

Project Responsibilities: -

- Designed and implemented the voice command interface
- Integrated the Speech Recognition library to convert speech to text
- Utilized pyttsx3 to convert text to speech
- Incorporated pywhatkit library to perform actions such as playing music or videos on YouTube and searching the web
- Used the datetime library to provide current date and time functionality
- Used the Wikipedia library to provide information on a wide range of topics
- Integrated web browser functionality to open websites or applications
- Implemented the ability to set reminders and alarms
- Provided information on the weather or news using requests and Beautiful Soup libraries
- Ensuring the virtual assistant can understand natural language commands and respond appropriately.
- Demonstrating how Python can be used to create an intelligent virtual assistant.

Contact

Address

F 14, M.P. RESIDENCY,

Marunji (Opposite Bhairavnath Temple),

Pune, Maharashtra,

Pin code: 411057,

Phone

8299726803

E-mail

devanshshukla5737@gmail.com

LinkedIn

www.linkedin.com/in/devansh-shukla-911180263