

BALAJI C

Data Scientist

CONTACT

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KEY SKILLS

- Data Analysis
- Data Visualization
- Predictive Modeling
- Machine Learning
- Deep Learning
- NLP
- OpenCV

Machine Learning

- Decision Tree
- Random Forest
- Support Vector m/c
- Navie Bayes
- K Nearest Neighbours
- Random Forest
- Logistic Regression
- Linear Regression
- Lasso Regression
- Ridge Regression
- K-Menas Clustering
- Agglomerative Clustering
- DBSCAN Clustering
- Hierarchical Clustering
- XGBOOST
- Cat Boost
- Ada BOOST
- PCA
- Aprori
- Elcat

PROFILE

A passionate data scientist having experience in predictive modelling, data processing and analysis, data mining and applying various ML and DL algorithms to solve challenging business problems by using Python as programming language.

PROJECT'S

Self Driving Car Simulation:

AIM:In this project we are going to learn how to train a self driving car using Convolution neural networks CNN.

Description:Using the simulator we will first drive the car and collect data. Then we will train a CNN model to learn this behavior and then test it back on the simulator using flask app.

Tools: Udacity Self Driving Car Simulator.

Libraries: CNN,OpenCV, Numpy,Pandas and Matplotlib,

Deployment: Flask.

Result:Finally in the simulator car completed the lap without any violating track and accuracy of the model is 90%.

Git-hub <https://github.com/Balajichandra/AI-Self-Driving-Car-Simulator>

AI Chat Bot:

Aim:Build a real time AI chatbot for a Institute inorder to provide a 24X7 support for the customers and get the chat back in the form of email back to institute.

Description:Based on customer need a intent file is created. On intent file we apply NLP techniques like tokenization, lemmitaization and Bag of Words(BOW) .BOW is given as input to ANN model and model is trained,By using tkinter we create a GUI for chatbot with model deployed.

Libraries: CNN NLP,Flask,Numpy.

Result:Finally a chat bot is created with a accuracy of 92%.

Git-hub: <https://github.com/Balajichandra/ChatBot-with-flask-and-emails>.

Deep Learning

- ANN
- CNN
- RNN
- LSTM
- GAN
- Encoder and Decoder
- Self Organizing Maps
- YOLO Object Detection

Natural Language Processing

- Tokenization
- Stemming
- Lemmatization
- POS tagging
- Bag of Words
- tf-IDF
- Word-embedding,
- Word2vec

Web Tech

- Backend:Django, Flask
- Frontend:HTML, CSS,JS(Vanilla), Jquery

Data Base

- SQL:MYSQL
- NoSQL:MongoDB

Tools and IDE

- Anaconda
- Visual Studio Code
- Atom IDE

Personal Details

DOB:22/12/1995
Father Name:J Chandra Bose
Mother name:C Sangeetha
Nationality:Indian
Religion:Hindu
Marital : Single
Status

Languages Known

English,Tamil

Crop Recommendation using Machine Learning:

Aim : Precision agriculture is in trend nowadays. It helps the farmers to get informed decision about the farming strategy. Here, I present you a app which would helps the users to build a predictive model to recommend the most suitable crops to grow in a particular farm based on various parameters

Description: We apply Machine Learning Life Cycle on data like data collection,data preprocessing,exploratory data analysis, feature scaling,splitting the dataset for train and test,train model and predict result.

Libraries and Algorithms :Numpy,Pandas,Matplotlib,Seaborn,Random Forest Classification,Xtreme Gradient Boost Classification,Decision Tree Classification,Navie Byes and Logisitc Regression..

Result: After applying various classification algorithms on the model Random Forest have given highest accuracy with 99%.

Git-hub: <https://github.com/Balajichandra/Crop-Recomendation>.

Heroku: <https://ml-crop-classification.herokuapp.com>

Work Experience:

Python Developer(Trackerwave Technologies)

Worked on IOT(Python) using MQTT for patient tag and coaster devices.

Coaster Device:The main objective of this project is to send information in hospital from patient to doctor/nurse and vice versa for various reasons like at what time scan or any testing is scheduled, at what time doctor will come to inspect the patient.

Patient Tag:The main objective of this project is to send notification to the doctor/nurse if the patient fell down from bed.Inorder to sense the fall of patient we have a sensor attached to the bed and tag which are connected to send signal.

Graduate Engineering Trainee(Vertex Power solutions)

Worked in assembling,testing and service of servo stabilizers

Achievements:

Passed BEC (British English Certificate) with council of Europe with A2 .
Participated in ESVC(Electric Solar Vehicle Competition) and won 11th place out of 92 teams.

Education

Vel Tech Multi Tech Dr.Rangarajan Dr.Sakunthala Engineering College(2013-17)

CGPA:6.51/10