Shilpa Bane

Contact

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Skills

Programming Languages – Python, C, C++

Machine Learning – Supervised and Unsupervised Learning

Statistics and Analytics – Descriptive Analytics, Predictive Analytics

Neural Networks – Artificial Neural Network, Convolutional Neural Network

OS – Windows, Linux

Data Science Libraries – Numpy, Pandas, Matplotlib, Seaborn, Sklearn/Scikit-learn

Web Framework – Flask, Django, (REST API)

Deep Learning Framework - Tensorflow & Keras

Cloud Deployment

Natural Language Processing (NLP)

Computer Vision

Web Scraping - BeautifulSoup4

Other ML Skills – ML Model Tuning, Principal Component Analysis, Machine Learning Pipeline

IDE – Jupyter, Pycharm, Spyder

Summary

- 2.3 years of experience in data analysis as Asst. Engineer.
- Had task based involvement in various projects as an Assistant engineer for LCA simulation, caustic Modelling, AERMOD, ALOHA, etc. modelling software.
- Worked on Data processing, Data Analysis & Data visualization
- Worked on Image Processing for developing Object Recognition system
- Practical knowledge of Python & Machine learning Algorithms like-– Linear and logistic regression, KNN, Support Vector Machines, Decision Tree, Random Forest, K-Means
- Sound Knowledge of Deep Learning, NLP & ANN
- Team coordination, interested to learn new things; work on new projects and trial of different approaches for better solution.

Education

- Master of Engineering in Computer Science from Pune University in 2015
- Bachelor of Engineering in Computer Science from Mumbai University in 2012

Experience

Worked as an Assistant Engineer for SEE, Mumbai.

Designation: Asst. Engineer

Duration: February 2017 to June 2019

Projects:

Analysis of Air Pollution based on IMD

- **Technologies-** Python,Pandas,Seaborn,Statics, scikit-learn
- **IDE–** Jupyter Notebook

Evaluation of Air Quality with Social Media Data and NLP(Natural Language Processing)

- **Technologies -** Python, Pandas, scikit-learn,NLTK,Bag of Words,Word to Wake, JENSIM
- **IDE –** Jupyter Notebook

PropTech for Proactive Pricing of Houses in Classified Advertisements

- Creative feature engineering
- Use of Pandas and NumPy to process the large files of leads details to reduce the latency.
- Cleaning up the erroneous data to avoid the process failure, Encoding of categorical data based on different data encoding techniques like One hot encoding, Label Encoding.
- Advanced regression techniques like random forest and XGBoost
- Hyperparameter optimization

Technologies - Python, Pandas, scikit-learn **IDE** – Jupyter Notebook

Twitter Data Sentiment Analysis

Natural Language Processing based model is developed to analyze the sentiments of users based on the tweets they made. NLP techniques like removing stopwords, stemming, bag of words etc used.

Tools Used: Python, nltk, Twitter API.

Project Details (M.E)

Color object Recognition using Reflex Fuzzy Min-Max Neural Network

In this project, Color Object Recognition system having partial supervision learning ability is described. The system is divided into two parts namely, feature extraction and classification. Feature extraction part uses classic Hu and Zernike moments joined with Geodesic descriptors. To keep the maximum amount of information that is given by the image, Zernike and Hu are calculated for each color level. Geodesic descriptors are applied directly to binary images to keep the shape information of the object.

These features are used to train Reflex Fuzzy Min-Max Neural Network (RFMN). It is capable to learn mixture of labeled and unlabeled data. The system is tested on coil-100 database. It contains 100 object and 7200 images.

Paper Publications:

- A Paper on “Color Object Recognition Using General Fuzzy Min Max Neural Network”, IJCSN International Journal of Computer Science and Network, Volume 3, Issue 6, December 2014 ISSN (Online) : 2277-5420.
- A Paper on “Color Object Recognition Using Reflex Fuzzy Min Max Neural Network”, ICPC International conference on pervasive computing 2015.