# HIMALAYA MANDAL

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PYTHON | ML | DJANGO | REST-API | DATA ENGINEERING | WEB SCRAPING | NLP | AWS | PYSPARK | APACHE AIRFLOW | POSTGRESQL EXPERIENCE

# AUGUST, 2021 TO SEPTEMBER 2022

DATA ENGINEER, TREDENCE

JOB ROLE: filtering and mining data from various source and develop data pipeline in azure databricks.

### **OCTOBER, 2020 TO JUNE 2021**

SENIOR SOFTWARE DEVELOPER, HOMZHUB ADVISORS PVT. LTD

**JOB ROLE:** leading a team to develop the backend in Django and rest-api. Also developing a recommendation system to recommend user as per their behavior.

#### **FEBRUARY 2020 TO AUGUST 2020**

**NLP DEVELOPER, WSE GAMES** 

**JOB ROLE:** responsible to develop a web scraper and a recommendation system for the product.

### **JUNE 2019 TO JANUARY 2020**

PYTHON DEVELOPER, ECLIPSE TECHNOCONSULTING GLOBAL PVT. LTD

**JOB ROLE:** Responsible to work with client to understand the requirements and implement it while maintaining the deadline.

#### **SEPTEMBER 2018 TO APRIL 2019**

PYTHON ANALYST, INDIAN CYBER SECURITY SOLUTIONS PVT. LTD.

**JOB ROLE:** I was part of training and development team. I was responsible to give training on python and machine learning.

### SKILLS:

### **Programming Language:**

Python, Html, CSS, JavaScript

### Framework:

Django, Rest-Api, PySpark, Apache-Airflow, TensorFlow, Docker

#### **Data Science:**

Machine Learning, Data Engineering & visualization, NLP, TF-IDF, word2vec

### Database:

PostgreSQL, MongoDB, MySQL, Sqlite3, Redis

#### CLOUD:

AWS, Azure

### Packages & algorithm:

Pandas, NumPy, Matplotlib, Scikit Learn, SciPy, Collaborative filtering, Recommendation Algorithm, Clustering Algorithms, Classification Algorithms, request, bs4, scrapy, QT5, NLTK, spacy.

### Version control, Tools & OS:

Git, Vs Code, JIRA, confluence, Flake8, Jupyter Notebook, Anaconda, Linux (Debian), Scanning Tools (Netsparker, Accunetix, Nmap, Nessus, Burp Suite, SqlMap)

### **EDUCATION:**

2005-2011

SECONDERY, MASANJHAR ADIBASHI HIGH SCHOOL

**PERCENTAGE: 71%** 

Board: WBSE

2011-2014

HIGER SECONDERY, INDPUR GOENKA HIGH SCHOOL

SPECALIZATION: SCIENCE

Percentage: 63% Board: WBCHSE

2014-2018

B. TECH, GURU NANAK INSTITUTE OF TECHNOLOGY

SPECALIZATION: COMPUTER SCIENCE AND ENGINEERING

CGPA: 7.10 Board: WBUT

# **PROJECT:**

# 1. User persona Building and recommendation system

Duration: November, 2020 to till June 2021

<u>Description</u>: Here I have to build user persona according their behavior the platform. According their behavior, I have to push notification, advertise, Real estate property, blog, video etc.

Role: Lead Developer

<u>Technology:</u> Dajngo, rest-api, celery, web scrapping, postgresql, apache airflow, Collaborative filtering, nlp, classification, PySpark, AWS, git, jira.

Language: Python

Client: Homzhub Advisor pvt. Ltd

## 2. Big bazar future sells prediction according to past sells data

Duration: December ,2017 to June 2018

<u>Description</u>: predict clusters of customers by store location. knowing the set of customers that behave evenly will help them target their product promotions accordingly. In this project data wrangling is the main problem. There is to much error in the data. But after filling the data in particular way I am able to solve the problem. Next problem was the predicting. I have been used pca over gmm and k-means algorithm to solve the problem.

<u>Role</u>: developer (internship) <u>Tools</u>: Jupyter notebook, git

Language: Python

Client: Future Group

## 3. Website vulnerability scanner using python

<u>Duration</u>: Still working on that (January, 2018 to now)

<u>Description</u>: It will scan a website and find out those vulnerabilities which can affect security of that website. At first, we have to bypass the load balancer of a website. So, I have to use change user agent randomly. I used various type of payload to detect those vulnerabilities.

Role: Developer

Tools: Accunetix, apache airflow, git.

Technology: Mechanize, owasp top 10 vulnerability architecture, Json, xml, python, sql

Database: Mongo dB, MySQL

# 4. Arcturus cryptocurrency Wallet

Duration: 5 months

<u>Description</u>: Creating a completely new cryptocurrency called arcturus. Developing the website and building the coin was my responsibility. I used ethereum ico base to create this coin.

Website: www.arcturus.com

Role: Lead Developer

Database: Mongo dB, MySQL

Technology: Block chain technology, aws ec2, blockchain, Django,git

Language: Python, html, css, javascript, Solidity

## 5. StartWrite India

Duration: 8 months

<u>Description</u>: It's a desktop software where kids can learn to write "a,b,c,d" which is made using tkinter and matplotlib as main component. There every letter is a dynamic graph using matplotlib.

Website: https://www.startwriteindia.com/

Role: Developer

Technology: python, matplotlib, tkinter, git, numpy, pandas

<u>Database</u>: Sqlite3 Language: Python

### 6. Recommendation System

Duration: 5 month

<u>Description</u>: Here I have to build a system where it will recommend user according their search History, according their post, comment, hashtags etc etc. Here I have built a total word relation Mapping. Their I am scraping total 110 websites for latest news update and saving that news In S3, and later showing those news using the recommendation system according user interest. All of recommendation return back to to user using api endpoint.

Role: Lead Developer

<u>Technology</u>: python, collaborative algorithm, svr, knn, word2vec, karnel approximation, git, request, Web scraping, s3, sqs, sns, ec2, csv, Django, pandas, numpy

Database: Mongo DB

Website: https://wenaturalists.com/

## 7. Extract, Convert, Rewrite on Image which contain Text.

Description: Here I have to build a system where it will Extract the text from image, Translating

the Text into other language, rewrite on the image. I am using yolo algorithm with cnn to detect the Text, Google translate api for translate the text, Image Inpainting for removing and repairing the image.

Role: Lead Developer

Technology: python, yolo algorithm, Tensor Flow, opency, cnn, Django, git

Database: MySQL

# **Internship:**

Company Name: Future Group

PROJECT: Future sell prediction using past sells data.

TimeLine: 1st December 2017 to 30th June 2018

## MY RESEARCH BASED WORK:

## 1. Bezier Curve Algorithm:

It's a Python package which is update by me from previous bezier algorithm package. I have been implanted linear interpolation method on the previous algorithm. Now this package will return points and axes plot as per your requirement. It can ignore some angle like you don't want a curve under 30 degrees.

Git link: <a href="https://github.com/xhimalaya/brezier.git">https://github.com/xhimalaya/brezier.git</a>

2. ICMP Smurf attack detection using neral network.

It's a server side tool. It's can work in real time and also can analysis server log file to identify icmp smurf attack. It's totally made in python with help of keras and tesorflow. I have been created 6 neurons and the accuracy was approx 92% where for this same random forest algorithm was returned accuracy of 78% with 10000 n\_jobs and 1000 nodes with lot more time complexity.

Git link: https://github.com/xhimalaya/ICMP\_smurf\_attack\_detection.git

### **CIRTIFICATE:**

- 1. BIG DATA ANALYSIS FROM CDAC
- 2. Certified by Microsoft on Database Fundamental
- 3. Certified by IIT Mumbai on C programming.

## **ACHIEVEMENT**

Delivered a speech at IIT Kharagpur on Machine Learning (super vised learning).

### **HOBBY**

Off road cycling, Photography, hacking.

## **ABOUT MYSELF:**

I am an organized, efficient and hard-working person, and am willing to discover and accept new ideas which can be put into practice effectively.