Topics covered in the interview:

ML Questions

1. Difference between KNN and kmeans clustering

2. What is True Positive Rate and F1 Score ?

3. How to Check multicollinearity?

4. What are different pre-processing steps for text analytics?

5. What is TF-IDF? How does it gets calculated?

Python Questions

1. Difference between list and tuple ?

2. explain join() and split() in python

3. Write Python code to generate Fibonacci series using python:- Fibonacci Series - (0, 1, 1, 2, 3....)

Python:

----------------------------------------

1. What is differece between list and tuple

2. What is iterator and Generator

3. How multithreading is benificial

4. Apart from multithreading other ways to handle concurrent programming

5. Explain all blocks in python exception handling

7. What is list comprehension, how it is efficient.

8. What is 'with' keyword in python

9. Count the items in the list ['A', 'B', 'C', 'D', 'A', 'A']

10. [[3,2,1], [3,2,1], [3,2,1]] convert this list into [[1,2,3], [1,2,3], [1,2,3]] using list comprehension

Pandas

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1. How will you preprocess the data using pandas

2. How will you fill values in place of 'NaN'

ML

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1. What is boosting and bagging algorithms

2. Difference between KNN and K-means

Django

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1. What is the django architecture

2. What the django request and response cycle

3. What is the use of setting.py

4. What is the use of manage.py

5. What are few builtin Middleware

6. When django request come which file gets executed at first

1. What was the challenging task you have done with python

2. We have huge log file which is real time. needs to be read each line which is having saveral jobs that needs to be executed

prepare the summary report mentioning start time and end time for each job

3. find the overlapping line in two files and writes to the third one

4. Write the API which handles both GET and POST request

5. How will handle an Exception in the API

6. sort the given dictionary values and return updated dict

7. What will be the output [x\*\*1 for x in range(3)]

8. What will be the [x for x in range(100) if x % 2 == 0 if x % 5 == 0]

9. How the multithreding performs in python.

1. About Yourself

2.Python List

3.List Questions

4.List comprehension.

5.Python Exceptions and used in projects

6.About Django.

7.About Projects in detail

Client : HSBC

Interview Date : 5/Jan/2021

No. of Rounds : 1 Technical

Duration : 40 min

Mode of interview : Zoom VC

Topics Covered:

1. Pandas, Memory management in mutable and immutable objects, slicing, Word2vec based on CV, models that I used, technology I worked on w.r.t ML, exception handling, inheritance , python terminologies

2. Where I fit myself in ML domain - NLP

3. How I used to deal with inhouse projects (based on my roles)

Questions I was not able to answer:

Had a partial answer to a question, for a coupleI had given my approach and solution which were valid according to me and the Interviewer, but Interviewer wanted to know if there could be another way.

Did the panel explain the project to you?

- Not domain specifically , but mentioned how they use local techniques rather than a global approach, which was a point of interest as well.

What are your thoughts on Interview, Technology stack and project explained by the client:

- Interview was a good exposure with a decent communication of thoughts , approaches and techniques that can be incorporated (both sides)

- The project explained by the client is a straight-forward set of skill that I possess, overall a good experience.

Client: hsbc

Interview date: 5-01-2021

No of rounds of interview: 1

Duration of each round: 1:15 hrs

Mode of Interview: zoom meeting

Interviewer: sweta

Topics covered in the interview:

1) python

2) projects and responsibilities

Questions you were not able to answer:

Most of the questions were around python only. Few coding scenarios.

Questions which I could not answer were around logging module, thread vs process, few class related questions, Linux related questions.

Questions asked by you to the panel:

Not many actually

Did the panel explain the project to you? No

If yes, explain in detail what information has the panel shared with you about the project/Responsibilities/Team/Culture/Technology Stack?

What are your thoughts on the interview, the technology stack and project explained by the client?

I felt the requirement was more about python developer...there were no questions around image processing or DL or ml or ocr.

Overall interview experience:

Neutral

Interview was good, Told him projects in Django Domain and Web application, Answered all the questions,

Interviewer – Ankit B

Django oriented interview – Very Deep

Python

Web and REST API

No ML – since he does not have much experience

No Cloud, AWS, DevOps, GCP

He asked him what ML should he prepare – Interviewer suggested Boosting and Bagging

Interviewer – Dev Gosh and Hashil Shah

Topics:

Python

Database

Django

Numpy

Pandas

Interviewer: shweta and deep

Topics covered in the interview:

1)            Basic python

2)Pandas

3)Questions related to project,and responsibilities

4) data preprocessing and training ,testing the data set.

5)In which format you get the data from client.

6)one python code on list and dictionary.

Questions you were not able to answer:

1) deployment of machine learning module .

-answered partially.

Questions asked by you to the panel:

What will be the responsibilities.

Did the panel explain the project to you? If yes, explain in detail what information has the panel shared with you about the project/Responsibilities/Team/Culture/Technology Stack? - yes,require to work on core python,responsibilities will be share among the team.

Topics covered in the interview:   
Pandas Joins and concatenation  
How to Reduce File pixels

Flask API Related Questions    
How to Reduce File pixels - partially answered using opencv library

ML/AI  
DB

Basic python and python OOPs  
Flask framework

Databases, ORM

What are Mainframe technologies(my other skill)?

Last projects from resume

How do you convert a dictionary to csv file? Answered partially

1) project overview and question from it.  
2) how will you read a huge file and extract data from it?  
3) Unix - aux and ps & grep, how can we save logs from a unix scripting file  
4) public & private keys  
5) Flask - how to do deploy,   
6) SQL: different type of joins, group by, aggregate functions  
7) \_\_init\_\_, modules, packages, datatypes, exception handling, logging level,  
8) Can we load csv in tuple?,  
9) Find the count of element from list in a dict.  
10) Extract 'Apple' from string "a='mango', b='orange', c='Apple'".  
11) procedural vs OOPs languages

12) Agile tools

13) Git related question

14) How do you load data form csv to database

15) SSL verification

Python memory management, performance tuning, RDD, Functions, and airflow.

ML Questions  
1. Difference between KNN and kmeans clustering  
2. What is True Positive Rate and F1 Score ?  
3. How to Check multicolinearity?  
4. What are different preprocessing steps for text analytics?  
5. What is TF-IDF? How does it gets calculated?  
Python Questions  
1. Difference between list and tuuple ?  
2. explain  join() and split() in python  
3. Write Python code to generate Fibonnaci series using python:-   
     Fibonnaci Series - (0, 1, 1, 2, 3....)

Process – Trial and Error

R&D work

Process

Everything from your respective resume.

Which all model followed.

Approach for the model.

Flask API used.

Some basic questions on stats.

Python

Framework

RNN normal question

OCR basic

Process followed in Your Company for creating and deploying model.

*NLP (Text Processing), Image Processing (CNN), Machine Learning.*

Prepare on everything mentioned in you CV

Trial and Error R&D work Process Everything from your respective resume. Which all model followed. Approach for the model. Flask API used. Some basic questions on stats. Python Framework RNN normal question OCR basic Process followed in Your Company for creating and deploying model.

about project, different ways to do it , loss function, API , Flask, fav algorithm

loss function

stick to basic or core python libraries , try to give example using common used libraries

Basic neural network, image processing, Natural language processing(NLP), Basic Machine Learning.

Tradeoff between bias and variance

overfitting and underfitting

cost function

l1 and l2 regularization

backpropagation

what is OCR, how you define OCR

what is NLP

how to process text using NLP

how to process text from sentence

RNN different from neural network

explain your all project

Given a scenario, where i ask to give a solution. question - suppose you have to read account statement of some user and want you to calculate how much he spends on online shopping. i was given an answer but they if new online company comes in the picture then how automatically it will detect that company also.

Text Processing

CNN

NLP

OCR

DECISION TREE

Image processing

Libraries of machine learning and NLP.

Questions you were able to answer:

Internship project

Technology used

CNN based all questions

NLP Preprocessing

Text classification

Image processing

Core ml libraries

OCR related process involved

Libraries in ml and NLP.

What is main challenge in developing ocr

Why you want to join HSBC.

Gradient descent problems and how to overcome the problems.

I have explained the pillars of problems with details but technical guy exact core of problem.

What were libraries for ocr

I have given TESSERACT  is library widely used  but manager wanted to know more libraries and tools related to OCR

What was the job role and responsibilities.

Ocr related questions

Self learning vs coaching

Siri vs Google assistance

Networking vs ml

Probability permutations combinations

Decision tree

Line equation

LSTM svm

Python basics

Debugging skills.

Clarity with code of practice

1. When to use list, tuple and set in python?
2. What are local and global variables?
3. What is PYTHONPATH?
4. What is pickling and un-pickling?
5. What is multithreading in python?
6. How to convert string to lower case?
7. Difference between deep and shallow copy
8. What is histogram used for?
9. How to remove/delete files ?
10. Write a program to produce Fibonacci series (0, 1, 1, 2, 3, 5)