



Hassan Rehman.

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Career Objectives:

My goal is to secure a position in a creative and dynamic work environment where I can apply my skills in programming and excel myself in the field of data science. Always delivering quality and driving innovation, I am ideally positioned to drive portfolio expansion and am ambitious about leading risk management programs for clients.

Profile:

- An enthusiastic man with high motivations and leadership skills having bachelors in Computer Sciences.
- Eager to learn new technologies and methodologies.
- Expert in performing multiple tasks.
- Expert in solving problems.
- Good at image processing, NLP and web development.

Interested In:

- Machine Learning
- Artificial Intelligence
- Image Processing
- Data Analysis
- Web Development

Technical Skills:

- **Programming Skills:** Python, Java(Android), C#, C++, PHP
- **Programming Tools:** Python OpenCV, Linux, GIT, Selenium, Scrapy, BeautifulSoup, Celery, VTK, EEL, Jupyter Notebook, VS Code, Numpy, Cupy, Pandas, Bokeh.
- **ML Tools:** Keras, PyTorch, Tensorflow, Pandas, Spark, Scikit Learn, Spacy, NLTK, RASA NLU, Dialogflow
- **BI Tools:** Power BI, Tableau
- **Web Designing Frameworks / Tools:** Django, Flask, Angular, REST Frameworks ,HTML, CSS, Bootstrap4, Javascript, Jquery, AJAX, Three JS, Chart JS.
- **Servers:** Heroku, GCP, XAMP
- **DBMS:** PostgreSQL, MongoDB, MySQL, Redis
- **Microsoft Office:** Microsoft Word, Microsoft Powerpoint, Microsoft Excel, Libre Office.

Experience:

- **Data Scientist at “NextBridge Pvt Ltd”** **Jan 15th,2019-Present**
As a data scientist my role is to provide the solutions to the client related to data engineering, data modeling, computer vision and NLP depending on the type of project. Further more my duty involves consuming and writing API's mainly in python using either Django or Flask framework.
- **Intern Data Science at “NextBridge Pvt Ltd”** **Oct 15th,2018-Jan15th,2019**
Recruited as an intern in a well known software house. During my internship period I learned about different algorithm used in machine learning and deep learning and apply those algorithms to get the best solutions. Completed my internship with exceptional performance and that leads me to job in the same organization.
- **Associate Software Engineer Intern at “The TechSol BWP”** **July 1st,2018-Aug 11th,2018**
It was a short period internship back in my hometown. During that period I mainly worked on tasks related to computer vision that includes Face Recognition, DICOM data parser and 3D visualization.

Education:

- **Bachelors in Computer Science (BSCS)** **2014-2018**
The Islamia University of Bahawalpur
Achieved 3.6 CGPA.
- **Intermediate in Science (FSc)** **2011-2013**
Govt. Sadiq Egerton College, Bahawalpur
Achieved 75.45%.
- **Matriculation in Science** **2009-2011**
Pioneer High School, Bahawalpur
Achieved 85.33%.

Project:

- **AggDrone:**
AggDrone stands for aggregate drone. It is actually a software that include mainly computer vision and machine learning to convert vast area to 3D model by the process of photogrammetry. This project was made for the US based client. The purpose of this project is to to subject images taken from the drone and by using those images and metadata we convert those images to 3D model and scale to the actual size. We also develop the tool that allow to make ROI from the 3D model and calculate its volume. The accuracy of the sysem is compared by the already developed softwares like Kespry which performs the similar task but involve many other paid softwares like arcgis. The purpose of this software is to provide the best solution for the mining industry in low cost.
My roles in this project are following:
 - >> Providing solution for tasks related to computer vision.
 - >> Developing backend in python django
 - >> Deploying the project on GCP instance.<http://portal.aggdrone.com>
- **Quran Phonetic Search:**
This projects is based on searching Quran verses using phonetic technique which means search the verses on the basis of sound. My role in this small project was to make a clean data of Quranic verses and convert the Arabic data and Roman English data into phonemes. For better searching I convert the data from 6000 rows to 70,000 rows by applying trigram. The app is able to search Quranic verses from the input which could be either from speech recognition or from Roman English. The backend was designed on python flask and deployed on AWS instance.
<https://www.ikra.pk>
- **Next ChatBot:**
Next bot is a cafe bot made for NextBridge cafe department. The primary function of this app is to take order from the user and place it. Moreover the chat bot is capable of having other small talks, can give the company information, can tell the weather situation, can search about the famous personalities etc. The

fulfillment for this bot is made using the Flask and database is designed on postgresql. The webhook is deployed on heroku. The front end is designed in Android. I am the only team member in this project and my role includes development, designing and testing.

<https://www.dropbox.com/sh/g7po0o9qdp151hh/AAABPRl9iVIZlnuo5b0wa1zua?dl=0>

- **DICOM Data Parser and Visualization:**

This system is developed in python. System is capable of parsing all type of Dicom data. It gives the output of patient name, age and show data on basis of data protocol. Moreover it visualize the dicom image into 3d model by using python VTK.

- **Face Recognition:**

Developed a face recognition system for a client. This FC system can detect and recognize multiple person in one frame using HOG+SVM detector. To decrease the false recognition the KNN distance is kept low. The system is developed in python and user interface is designed in PyQt. It can be run on all device regardless of platform (Windows, MacOS and linux distributions)

- **FontsBytes:**

In this project my role was to update all the code that has already been programmed in python 2.7 and django version was less than 1.5. The code was updated to python 3.6 and django version of 2.2.4. Further more this application includes scrapping of fonts from other website and my role includes to write a scrapper in scrapy and design new pipeines.

<https://fontsbytes.com/>

- **Hand Tracking and Gesture Recognition:**

My final year project was based on computer vision. The project is developing in python using Open CV. The project will identify hand by color segmentation and perform different functionalities.

- **Other Projects:**

- Python Documentation. Link is following: <https://tech.paayi.com/python-programming>
- Song Recognition using Peak finding technique in Python.
- Music Generation using Markov Chain Model in Python.
- Hospital Management System in C#
- IP Screen Sharing and voice over IP in Python
- Screen Casting.

Other Skills:

- Fluent in speaking and writing English.
- Good communication skills.
- Can do multi tasking efficiently.
- Good in research and development.

Hobbies:

- Sketch artist by passion.
- Eager to learn new technologies.
- Like to watch and read about war tactics and taboos of society.

Reference:

Reference will be furnished on demand.