ANUGRAH RASTOGI

B.Tech. - CSE

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KEY EXPERTISE / SKILLS

Python | Machine Learning | Deep Learning | Natural Language Processing | Data Structures | Algorithms | C | MySQL

EDUCATION

Manipal University Jaipur 2017 - 2021

B.Tech. - CSE | CGPA: **9.30** / **10.00**

Amity International School, Noida 2017

12th | CBSE | Percentage: **89.00** / **100.00**

Delhi Public School, ONGC, Nazira 2015

10th | CBSE | CGPA: **10.00** / **10.00**

PROJECTS

Huffman Coding

Oct. 1, 2019 - Nov. 1, 2019

Key Skills: Trees | Hash Maps | Min Heap

Implemented the Huffman encoding algorithm in Python, to compress and decompress text files. The algorithm reduces the size of the text file by 50% and can also decompress the file without any loss of data. The code for each character are stored in a python dictionary. Various data structures like trees, hash maps and min heap have been used to build an efficient algorithm.

2048 Game

Sept. 1, 2019 - Oct. 1, 2019

Key Skills: Python | Tkinter | Data Structures

Cloned the popular game 2048 in Python using the tkinter GUI library. The objective of the game is to create a tile with the number 2048 by sliding and combining the numbered tiles on a grid. "a", "d", "w", "s" keys have been used to move the tiles to the left, right, up or down respectively.

Gender Recognition using LSTM

July 1, 2019 - Aug. 1, 2019

Key Skills: Pandas | LSTM | Keras

Designed a LSTM based model to classify the gender of Indian names as male or female. The model is able to achieve an accuracy of 91.52%. This model is inspired from the fact that, as we humans are able to identify the gender of a person just by seeing the name, so the machines should also be capable of doing the same.

Spam Classification

June 1, 2019 - July 1, 2019

Key Skills: Pandas | Naive Bayes Algorithm

Implemented a Spam Classifier using Gaussian Naive Bayes Classification algorithm. It is used to classify whether a text message is a spam or not with an accuracy of 90.42%.

Image Classification using Transfer Learning

June 1, 2019 - July 1, 2019

Key Skills: Transfer Learning | ResNet50 | Keras | NumPy

Designed a Transfer Learning model using ResNet50 to classify four class of images (Humans, Horses, Cats and Dogs). The data set used is 4classimages and the model achieved an accuracy of 94.68%.

Face Recognition using KNN Algorithm

June 1, 2019 - July 1, 2019

Key Skills: OpenCV | K-Nearest Neighbors | NumPy

Built a face recognition system using OpenCV, Haar Cascades Classifier and K-Nearest Neighbors algorithm. A python script captures images from the laptops/computers webcam video stream and then extract face from the image frame using harr cascades. The face information is stored in a numpy array, which is then used for training and recognition of faces.

Decision Tree Algorithm from Scratch

June 1, 2019 - July 1, 2019

Key Skills: NumPy | Pandas | Scikit-Learn | Decision Trees | Random Forests

Implemented a Decision Tree algorithm from scratch. The algorithm predicted the survival of the Titanic passengers using the famous Titanic data set with an accuracy of 84.28%. The in-built Decision Tree and Random Forest algorithms in Scikit-Learn library were used, which gave an accuracy of 86.41% and 88.66% respectively.

Hotel Management System

Feb. 1, 2019 - April 15, 2019

Mentor: Dr. Sandeep Joshi | **Team Size:** 2

Key Skills: Java Swing MySQL JDBC

The project simulates the basic functioning of a hotel management system developed in Java Swing. The application has two main functionalities. First is a room booking system for a customer, where he/she can book rooms (different categories of rooms are available). Second is for the Administrator to manage the details of his employees. The functionalities available to a customer are room booking, room cancellation and hotel membership. And the administrator can add or get the details of the employees like address, number of hours worked, number of leaves taken and generate salary. The details of the customers and the employees are stored in databases using MySQL. And the Java Swing Application and database in MySQL is connected using JDBC.

ASSESSMENTS / CERTIFICATIONS

Applied Plotting, Charting & Data Representation in Python
Aggregate: 96.7 / 100.0

Learn to Program: The Fundamentals
Aggregate: 98.4 / 100.0

Introduction to Data Science in Python
Aggregate: 98.3 / 100.0

Programming for Everybody (Getting Started with Python)
Aggregate: 100.0 / 100.0

Using Python to Access Web Data
Aggregate: 100.0 / 100.0

Databases and SQL for Data Science
Aggregate: 100.0 / 100.0

SEMINARS / TRAININGS / WORKSHOPS

Data Structures and Algorithms in Python

June 20, 2019 - Oct. 19, 2019

Institute Name: Coding Ninjas

Key Skills: OOPs Data Structures Algorithms

The course dealt with the concepts of Object Oriented Programming, Recursion along with the implementation of various data structures like linked list, stack, queues, trees and graphs. Under the algorithms section various approaches like Greedy algorithms, Dynamic Programming and Backtracking for designing and analysis of algorithms were discussed in detail.

Machine Learning Master Course

June 7, 2019 - July 28, 2019

Institute Name: Coding Blocks

Key Skills:

Supervised Learning Algorithms Unsupervised Learning Deep Learning Deep Learning in Computer Vision Natural Language Processing Reinforcement Learning

The course covered Machine Learning algorithms (using scikit-learn) like Linear Regression, Logistic Regression, Decision Trees, Random Forest, KNN, KMeans, SVM and Deep Learning algorithms (using keras) like ANN, CNN, RNN, LSTM, GAN's. Along with this, it covered concepts of Computer Vision (using OpenCV), NLP (using nltk) and Sentiment Analysis.

Introduction to Python

May 20, 2019 - July 2, 2019

Institute Name: Coding Ninjas

Key Skills: Arrays Functions Searching Sorting

The course included basic programming paradigms like variables, conditional statements, loops, functions etc. and it covered basic data structures like arrays, dictionary, tuple and set and its operations.

WEB LINKS

- LinkedIn - https://www.linkedin.com/in/anugrah-rastogi-25534317a/
- Github - https://github.com/anugrahrastogi123