SAHIL BAIRAGI | 19CH10040

CHEMICAL ENGG. (B.Tech 4Y)

EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2023	B.TECH	IIT Kharagpur	8.86 / 10
2019	AISSCE	CBSE	93.6%
2017	AISSE	CBSE	10 / 10

PROJECTS

Sum of Palindromes | Self-Project [Sep'20 - Dec'20]

- **Implemented a research paper** on expressing every positive number as a sum of atmost 3 palindromes in any base >5 by Javier Cilleruelo, Florian Luca and Lewis Baxter
- Created a **web interface** with **Flask** as backend and **AJAX** in frontend to send requests
- Wrote tests to validate the results and compare the efficiency of program as compared to brute force algorithm

Resume Builder | Self-Project [Aug'20 - Aug'20]

- Created a website to **build** and **download resume** using HTML, CSS and Javascript and hosted it as a github page
- Implemented features like adding and deleting bullet points, reordering sections etc

Ask Me Now | Self-Project [June'20 - July'20]

- Created a **quizzing website** using **PHP** and successfully hosted it on 000webhost
- Front end was created using **HTML, CSS** and **Javascript** with **MySQL** database to store data
- Implemented features like generating random sets of questions, paginated leaderboard, displaying password strength etc

Command Line Pokemon | Self-Project [Aug'20 - Sep'20]

- Created a terminal game using **python** based on pokemon and compressed code into an executable file
- Used **Pickle** module of python to store the objects simulating the save and load game feature
- Implemented other features like dueling pokemons and gym leaders, evolving and learning new attacks

AWARDS AND ACHIEVEMENTS

- Secured **Second place** among the 188 participating teams in **Open IIT Coding Hackathon 2020-21** organized by Technology Students Gymkhana, IIT Kharagpur
- Contributed to **7 Opensource repositories** during **Hacktoberfest 2020** event organized by Digital Ocean
- Attained a maximum **Codechef rating** of **1993 - Top** 2**%** among all programmers on codechef

CERTIFICATIONS

Linear Regression with Numpy and Python | Coursera Guided Project

- Implemented gradient descent algorithm from scratch and created a linear regression model
- Visualized the data using matplotlib library

Neural Networks and Deep Learning | DeepLearning.AI

- Learnt the maths behind neural networks, vectorization, back propagation and activation functions

Improving Deep Neural Networks | DeepLearning.AI

- Learnt how to improve neural network's efficiency with help of initialization, L2 and dropout regularization, batch normalization, adam optimization etc

Convolutional Neural Networks | DeepLearning.AI

- Learnt convolutional neural networks for object detection & recognition and neural style transfer

SKILLS AND EXPERTISE

Programming: **Fluent in** Python, C, C++, Javascript, HTML5, CSS3, Bash
Familiar with PHP, Flask, React, AJAX, MySQL
ML toolkits: **Basics of** Keras, Scikit learn, Tensorflow, NumPy, Pandas, Matplotlib
Softwares/Tools: Git, Jupyter Notebook, Vim

EXTRA CURRICULAR ACTIVITIES

National Service Scheme (NSS):

- Conducted surveys along with team and constantly worked to improve the life of villagers
- Created a python script to **read and translate excel file** from one language to another using **google translate API**

!self declaration by the student