DHWANIL CHAUHAN

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Profile Summary

I am currently pursuing a Bachelor's degree in Computer Science as a result of my quest for advanced learning in technology, specifically related to data science, statistics, computing methodologies, artificial intelligence and advanced machine learning tools. Alongside my studies, I have gained valuable practical experience in Python, Data science and Machine learning tools as a result of multiple internship opportunities. To enhance my educational and learning experience, I now look forward to pursuing a Masters degree in Computer Science .

Education and Certifications

Btech. Computer Science and Engineering *2020 - present*

Currently in 4th year of bachelor's program at CHARUSAT university with 9.30 CGPA

Higher Secondary Education *2019 - 2020*

Completed my higher secondary education with 76.92 percentile from My Shannen School Higher Secondary Section.

Secondary Education *2017 - 2018*

Completed my secondary education with 93.74 percentile from Navrachana Vidyani Vidyalaya.

Programming for Everybody (Getting Started with Python)

- Offered by University of Michigan on Coursera
- https://www.coursera.org/account/accomplishments/certificate/UG6CBJ55AT3K

Machine Learning Specialization

- Offered by Stanford University and DeepLearning.AI on Coursera
- https://www.coursera.org/account/accomplishments/specialization/certificate/VJ2RU7HW9TRV

DeepLearning.AI TensorFlow Developer

- Offered by DeepLearning.AI on Coursera
- https://www.coursera.org/account/accomplishments/specialization/certificate/WX67VTVU38CT

PH125.8x: Data Science: Machine Learning

- Offered by HarvardX on edX
- https://courses.edx.org/certificates/db92a191b0454659af0c2399bda50cb9

Experience

Python Intern *May2022 - July2022*

- Intern at WebBrains Technologies, Vadodara , a company specializing in web development
- Worked on development of E-commerce website on Django framework using python, Java and front-end Ui frameworks.

Data Science and Machine Learning Intern *May2023 - June2023*

- Intern at BrainyBeam Technologies, Ahmedabad, a company specializing in web and mobile development
- Focused on basic implementation of machine learning fundamentals and basics of Data Science and worked on developing a medical insurance cost predictor attributable to Healthcare Domain.

Cocurricular Responsibilities

ACM Student Body Chairperson *June 2021 - Present*

- Chairperson of the Association for Computing Machinery (ACM) student chapter.
- Responsible for organizing and managing activities for student chapter.

Training and Placement Coordinator *August 2022 - Present*

- Student Coordinator for training and placement cell at CHARUSAT university
- Maintained placed student database, managed and accompanied the companies throughout the placement drive.

Under-Graduate Student Fellow *August 2023 - Present*

- Received a monetary Under-Graduate Student Fellowship at CHARUSAT University
- Granted for contributions to academic, research and development activities of the department

Research Papers and Presentations

A Novel Intrusion Detection System based on Machine Learning for Internet of Things (IoT) Devices

- Co-authored a research paper on A Novel Intrusion Detection System based on Machine Learning for Internet of Things (IoT) Devices: The paper mainly deals with the usage of Random Forest Classifier, Decision Tree Classifier and Support Vector Classifier on the CICIDS-17 dataset to detect for intrusions. The paper was presented at "**2023 3rd International Conference on Smart Data Intelligence (ICSMDI)**" on 30th March 2023.
- **DOI Key:** 10.1109/ICSMDI57622.2023.00081

Blockchain Wallets in Ethereum using Kotlin

- Co-authored a research paper on Blockchain wallets in Ethereum using Kotlin: The paper examines Ethereum blockchain as a wallet, showcasing its revolutionary potential, security, transparency, and need for ongoing development to overcome challenges. The paper was presented at "**7th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) I-SMAC 2023**".
- **DOI Key:** 10.1109/I-SMAC58438.2023.10290281

Technological Trends and Their Impact on Society: A Comprehensive Analysis

- Co-authored a research paper on Technological Trends and Their Impact on Society: A Comprehensive Analysis: The paper provides a comprehensive analysis of the impact of various technological trends, such as IoT, cloud computing, social media, and mobile computing on society and business, emphasizing the opportunities they create for IT experts in the industry. The paper has been accepted at "**World Conference on Information Systems for Business Management**".
- This paper was presented on 7 September 2023 and will be published in three months.

Harnessing Artificial Intelligence for Precise Pulmonary Disease Diagnosis

- Co-authored a research paper on how deep learning techniques can help revolutionize diagnosis of pulmonary disease using MRI scans of chest area based on which the model can detect the air flow blockage. The paper is accepted at "**International Conference on Self Sustainable Artificial Intelligence Systems [ICSSAS 2023]**" .
- **DOI Key :** 10.1109/ICSSAS57918.2023.10331667

Enhanced Brain Tumor Localization Techniques: A Paradigm Shift in Diagnosis

- Co-authored a research paper on A novel system for Brain Tumor Detection and Localization: The study proposes a deep learning model for accurate brain tumor detection in MRI scans, showing promising results and potential for improved patient outcomes in neurology. The paper has been accepted at "**1st International Conference on Artificial Intelligence for Innovations in Healthcare Industries**".
- The paper was presented on 29 December 2023 and will be published in 3 months

Comparative Analysis of Deep Learning Models for Image Classification: A Study on Synthetic Images of bags

- Co-authored a research paper on Comparative Analysis of Deep Learning Models for Image Classification : The study compares results of 3 different model that are trained on synthetic dataset. The paper is submitted at "**International Journal of Information Technology**"
- The paper is awaiting peer review.

RF-MalDetect: Harnessing Random Forest for Malware Identification in PE Files

- Co-authored a research paper on RF-MalDetect : The study proposes a random forest based solution for malware detection. The paper is submitted at "**1st International Conference on Innovation & Emerging Trends in Computing & Information Technology**"
- The paper is awaiting peer review.

Stress Detection Across Demographics: Leveraging Linear Regression Analysis

- Co-authored a research paper on Stress Detection Across Demographics : The study proposes a regressor based solution stress detection. The paper is submitted at "**ACM Transactions on Computing for Healthcare**"
- The paper is awaiting peer review.

Projects

RNW E-commerce website

- Developed an eCommerce website for a small scale bakery.
- **Tools used :** Django-Python, HTML, CSS, Java Script, Jinja Templating, MySQL

Career Prediction Tool

- Developed a career prediction tool where the algorithm uses the prospects grades and interests as inputs and suggests a suitable career path and provides a road map for the same.
- **Tools used** : Gaussian Naive Bayes Algorithm, Django-Python, Jinja Templating, HTML, CSS, Javascript

Age and Gender estimator

- The estimator uses face recognition methodologies to determine age and gender of an individual
- **Tools used** : OpenCV, Convolutional Neural Network, Python

Sentiment based Music Recommendation system

- The system captures an individuals picture at any point in time and produces music choice based on the mood of the individual as predicted by the algorithm.
- **Tools used** : OpenCV, Convolutional Neural Network, Flask Framework, Python

Lip Reading Model

- The model takes a video input and estimates the words spoken in the video from the lip movement captured by the video . This is based on LipNet deep learning model
- **Tools used** : Sequential Neural Network, Streamlit Framework, Python

Medical Insurance Cost Predictor

- Developed a Insurance cost prediction tool where the algorithm uses the medical details and other details as inputs to estimate the amount of insurance coverage.
- **Tools used** : Decision Tree Algorithm, LASSO Regression

Intrusion Detection System

- The detection system uses network traffic details for benign network and when network is under attack to train the system.
- **Tools used** : Support Vector Classifier, Decision Tree Classifier, Random Forest Classifier

Brain Tumor detection And Localization

- The system analyzes an individuals MRI scan to detect brain tumor and pinpoint its location in the MRI scan.
- **Tools used** : OpenCV, Convolutional Neural Network, Python, Transfer Learning

ChromaMagic: B/W to Color Image using GANs

- Project to convert any Black and White Image to Color Image using Generative Adversial Networks
- **Tools used** : Tensorflow, Unet, Convolutional Neural Network, Python, Generative Adversial Network

Super Mario Bot

- Created a Super Mario Game Bot using Reinforcement Learning. A Mario game bot that plays Mario on its own, learn from it's mistakes and implement its learning in next round.
- **Tools used** : DQTT, Reinforcement Learning, Python, Gym Library

Q&A Chatbot

- A conversational chatbot using Gemini Pro API and LLM that responds to all user questions.
- **Tools used** : LLM, Gemini API, Python, Large Language Model

Multi Language Invoice Extractor

- This web app takes documents form user in any languages and gives answer from the document provided.
- **Tools used** : LLM, Gemini API, Python, Large Language Model

Super Store Sales Dashboard and Forecast

- Dashboard to monitor sales in a store. Moreover, it also forecasts the next 15 days sales so that store can stalk up or down the resources accordingly.
- **Tools used** : PowerBi

HR Analystics Dashboard

- Dashboard specially created for company's HR inorder to look at attrition related data to analyze attrition rate by gender, by Job Role, by serving years in company and also by education that too department wise.
- **Tools used** : PowerBi

Volunteer Work

- EducationUSA - Mini Graduate Fair 2023 Coordinator — February 2023
- AZADI KA AMRIT MAHOTSAV HACKATHON - 2022 — October 2022
- Pythakon 2K22 Volunteer — August 2022
- Spoural 2022 Volunteer — March 2022

Technical Skills

- Highly proficient in Python programming language and its libraries
- Well-versed in creating advanced machine learning models with a strong track record of success
- Conversant with ml model deployment tools like Django, Flask, StreamLit
- Familiarity with deep learning frameworks like TensorFlow and PyTorch for building and training complex neural networks.
- Solid foundation in statistics and probability theory, enabling rigorous analysis and interpretation of results.
- Experienced in data pre-processing techniques, model evaluation and data visualization and generating insightful plots and charts
- Know implementation of OOPs concepts using C++ and JAVA

Personal Skills

- Exceptional proficiency in effective time management
- Highly adept at collaborating with teams
- Strong communication skills, both written and verbal
- Efficiency under pressure

Dhwanil R Chauhan
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