Vivek Choudhari

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SUMMARY

Dynamic Data Scientist with over 3 years of expertise of spearheading innovative Machine-Learning solutions. Specialized in AI and ML using Python, with notable achievements in efficient processing and segmentation of medical images. Led a team in pioneering groundbreaking algorithms for body part detection, and disease detection, contributing to significant improvements in 70% increase in efficiency, and 80% reduction in processing time for data extraction and cleaning. Experienced in streamlining data management processes and implementing cost-effective solutions.

SKILLS

PROGRAMMING

Python
SQL
C Basics

MACHINE LEARNING & DEEP LEARNING

Natural Language Processing (NLP)
Convolutional Neural Network (CNN)
YOLO
Regression
Classification
Gen AI Basics Concepts
OpenAI API Basics Concepts

PACKAGES

Numpy
Pandas
Scikit
TensorFlow
Keras
Matplotlib
OpenCV

DATA VISUALISATION

Power BI

COMPETENCIES

Team work & Collaboration
Decision Making
Statistical Analysis
Great Communication
Project Management
Continuous Learning

EDUCATION

B.TECH. IN MECHANICAL ENGINEERING

Vishwakarma Institute of Information Technology, Kondhwa, Pune-46
2017 - 2021

EXPERIENCE

MEDIMAZE SOLUTIONS PVT LTD | DATA SCIENTIST

May 2023 - Present | PCMC, Maharashtra

Chest X-ray AI (Pathology Detection)

- Utilizing python expertise in building multiple scripts for data segregation and extracting information from the text data.
- Implemented a streamlined data management solution utilizing an Excel database for patient details, resulting in an 80% reduction in time spent on data organization and a 90% reduction in storage space usage Cost Reduction.
- Implemented advanced text processing techniques to automate the extraction of critical data elements such as patient demographics and pathology findings from heterogeneous HTML reports, significantly reducing manual effort and error.
- Designed the system to be scalable and adaptable, allowing seamless integration with existing workflows and accommodating future expansion and modifications as project requirements evolve.
- Developed a Rib Fracture Detection Model for Chest X-rays with a Validation accuracy of more than 95%. Received special appreciation for this project and currently working on publishing research paper regarding the same.
- Developed multiple AI algorithms for chest X-ray abnormality detection, achieving impressive accuracy and validation metrics.
- Achieved a remarkable 100% accuracy rate in building classification models for body part detection, seamlessly integrating them into data processing workflows.
- Curated a diverse set of chest X-ray templates representing various pathologies and fine-tuned template matching parameters to optimize image similarity assessment and enhance detection accuracy.
- Leading the development of AI algorithms for 10 findings in Chest X-Ray such as Cardiomegaly, Tuberculosis, etc. with validation accuracies of 83% and above.

COGNIZANT TECHNOLOGY SOLUTIONS | PROGRAMMER ANALYST

Jul 2021 - Apr 2023 | Pune, Maharashtra

British Gas, UK

- Conducted in-depth analysis of customer attrition for British Gas, UK, identifying key factors contributing to churn
- Developed machine learning models to predict customer churn and provided actionable insights to mitigate attrition rates.
- Applied data science techniques to analyze text data, extracting insights on service challenges across different cities, areas, and demographics.
- Collaborated with cross-functional teams to implement data-driven solutions and optimize customer retention strategies.

TRAININGS

DATA SCIENCE & DATA ANALYTICS

ExcelR Academy
Jan 2023-June 2023
Baner, MH

COGNIZANT TECHNOLOGY SOLUTIONS | Internship | PA Trainee
Feb 2021 - June 2021 | Pune, Maharashtra

- Received training in languages like C, Python, SQL, and JavaScript.
- Familiarized with Agile methodology and Automation Testing principles.
- Successfully executed projects such as "Book Tour from Redbus.com" for Automation Testing.
- Engaged in Data Science projects including "Mobile Price Prediction" and "Sentiment Analysis."
- Actively pursued additional learning through Udemy certifications to enhance skills and knowledge.

CERTIFICATES

Apr 2024	NASSCOM(Govt. of India)	Masters Program in Data Science (IT-ITeS Sector Skills Council)
Jan 2024	GL Academy	AI for Healthcare
May 2023	IBM	Machine Learning with Python
Apr 2023	ExcelR Solutions	Data Science Certification
Apr 2023	Udemy	Artificial Intelligence A-Z™ 2023
Apr 2023	Udemy	The Data Science Course 2023: Complete Data Science Boot camp
Jun 2022	Microsoft Certifications	AI-900: Azure AI Fundamentals by Microsoft Certifications
May 2022	Udemy	Deep Learning A-Z™: Hands-On ANN
Apr 2022	Udemy	Machine Learning A-Z: Hands-On Python & R
Apr 2022	Udemy	Feature Engineering for Machine Learning

PROJECT CASE STUDIES

Sentiment Analysis (Regression)

- Utilized natural language processing (NLP) techniques such as tokenization, stemming, and lemmatization to preprocess textual data from customer reviews, converting them into a format suitable for analysis.
- Leveraged feature engineering to extract key features from the text data, enabling accurate sentiment classification and deeper insights into customer opinions.
- Implemented classification algorithms such as Logistic Regression, Naive Bayes, Support Vector Machines (SVM) to classify the sentiment of customer reviews as positive, negative, or neutral based on the extracted features.

Lung & Colon Cancer Image Classification (Classification using CNN)

- Developed an image classification model for lung and colon cancer, leveraging a dataset of 25,000 histopathological images across five distinct classes.
- Preprocessed the histopathological images by resizing, normalizing, and augmenting them using techniques such as rotation, flipping, and zooming to increase the diversity of the dataset.
- Leveraged deep learning architectures such as Convolutional Neural Networks (CNNs) to extract features from the image data and classify them into five distinct classes representing different types of cancerous and benign tissues.

Disease Prediction (Regression)

- Developed a predictive model to classify patients' likelihood of apoplexy using a dataset comprising 5000 medical studies.
- Employed machine learning techniques and feature engineering methods to analyze patient demographics, medical history, and lifestyle factors for accurate prediction.
- Utilized data preprocessing techniques to handle missing values, normalize features, and ensure the quality and reliability of the predictive model.