

VIVEK CHOUDHARI

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Innovative Data Scientist with 3.7+ years of experience in developing and deploying Machine Learning solutions across diverse domains. Skilled in leading high-performing teams, optimizing data-driven workflows, and implementing scalable AI models. Proven track record of improving operational efficiency by 70% and reducing data processing time by 80% through advanced analytics and automation. Passionate about leveraging AI for predictive modeling, object detection, & decision-making to drive business impact.

PROFESSIONAL EXPERIENCE

Medimaze Solutions Private Limited, Pune, MH

Data Scientist | May 2023 – Present

- Led AI-driven solutions to improve diagnostic accuracy and operational efficiency which will in turn reduce the diagnosis time by around 80%.
- Worked with cross-functional teams to integrate AI into existing medical workflows. Implemented cost-effective, scalable solutions, saving time and resources.
- Managed AI project lifecycles, ensuring alignment with strategic goals and compliance.
- Identified and resolved workflow challenges, driving process automation improvements.
- Maintained high standards of quality and compliance in AI models.

Projects:

AI-ML Deep Learning Models in Chest X-Ray

- Developed deep learning models for chest X-ray pathology detection, including Cardiomegaly, Pleural Effusion, Pneumothorax, Tuberculosis, and more, with validation accuracies above 93%.
- Designed custom algorithms for clinical measurements like Cardiac Size and Costophrenic Angle to support diagnosis.
- Curated large datasets and implemented data pre-processing techniques for optimizing model performance and accuracy.

YOLO Pathology Detection AI in Chest X-Ray

- Created and deployed YOLO-based models for detecting chest abnormalities such as nodules and rib fractures with validation accuracies of more than 97%, significantly improving detection rates and workflow efficiency.
- Led the integration of YOLO models into the clinical diagnostic pipeline, ensuring real-time detection and precise abnormality identification.

Simplified Report Generative AI (Mobile Healthcare App)

- Developed an AI chat bot to simplify medical reports for patients, explaining medical terms and findings. Initially integrated with ChatGPT API, now using OLLAMA Gemma for enhanced functionality.

Generative AI for Machine Protocol (CT/MRI)

- Built an AI system that guides machine technicians on correct protocols for CT & MRI scans, ensuring accurate scan and reducing human error.

Gender-Specific Reporting AI

- Introduced an Ollama AI to flag and prevent gender-specific reporting errors, ensuring no male-specific terms appear in female reports.

Generative AI for Report Labels/Tags

- Automated the tagging of patient studies (Normal/Abnormal) using AI to streamline workflow and data organization.

Programmer Analyst | Jul 2021 – Apr 2023

- 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.

Programmer Analyst Trainee | Feb 2021 – June 2021

- Trained in C, Python, SQL, and JavaScript, gaining familiarity with Agile methodology & Development Cycle.
- Executed projects like "Book Tour from Redbus.com" for Automation Testing and contributed to Data Science projects, including "Mobile Price Prediction" and "Sentiment Analysis."
- Actively pursued further learning through Udemy certifications to enhance skills.

SKILLS

Programming: Python, SQL, Power BI

Machine Learning & Deep Learning: Natural Language Processing (NLP), Convolutional Neural Network (CNN), Regression, Classification, YOLO Detection, Gen AI Concepts, OpenAI API Concepts, Ollama

Packages: Numpy, Pandas, Scikit, TensorFlow, Keras, Matplotlib, OpenCV

OS: Linux/Windows Commands & Deployments

Strengths: Project Management, Team work, Decision Making, Statistical Analysis, Great Communication, Continuous Learning

EDUCATION & TRAININGS

Vishwakarma Institute of Information Technology, Pune, MH

Bachelors of Technology, Mechanical Engineering (2021)

ExcelR Academy, Pune, MH

Data Science & Data Analytics (2023)

PUBLICATIONS & CERTIFICATIONS

International Research Journal of Engineering And Technology (IRJET)

Mathematical Modelling of an Automatic Bag Mask Valve Emergency Ventilator

GL Academy	AI for Healthcare
ExcelR Solutions	Data Science Certification
ExcelR Solutions	Data Analytics Certification
IBM	Machine Learning with Python
Udemy	Artificial Intelligence A-Z 2023
Udemy	The Data Science Course 2023: Complete Data Science Boot Camp
Microsoft Certifications	AI-900: Azure AI Fundamentals by Microsoft Certifications
Udemy	Deep Learning A-Z: Hands-On ANN
Udemy	Machine Learning A-Z: Hands-On Python & R
Udemy	Feature Engineering for Machine Learning

PROJECT CASE STUDIES

Lung & Colon Cancer Image Classification (Classification using CNN)

- Developed a CNN architectures model & Preprocessed images using a dataset of 25,000 images across five classes.

Disease Prediction (Regression)

- Created a predictive model for assessing apoplexy risk using 5,000 medical study records.