



# Diwan Singh Chauhan

Contact :- 7579095768

[Email](mailto:diwansinghchauhan91@gmail.com) :- diwansinghchauhan91@gmail.com

[LinkedIn](https://www.linkedin.com/in/diwansinghchauhan/) :- linkedin.com/in/diwansinghchauhan/

[GitHub](https://github.com/diwansinghchauhan) :- github.com/diwansinghchauhan

[Portfolio](https://diwansinghchauhan.github.io/portfolio/) :- diwansinghchauhan.github.io/portfolio/

## Objective

To work in a dynamic and innovative tech environment where I can apply my skills in Python programming, data analysis, machine learning, deep learning and computer vision. I aim to contribute to real-time AI solutions by developing and deploying models using frameworks like TensorFlow and PyTorch. I am eager to work on end-to-end ML pipelines, model optimization and domain-specific applications such as object detection, face recognition and predictive maintenance.

## Skills Summary

- **Data Science:** Python, Machine Learning algorithm, Data Analyst, Data Visualization, Numpy, Pandas, Scikit-Learn, Matplotlib, Seaborn, Probability, Statistics, PowerBI, TensorFlow, Keras, PyTorch, Natural Language Processing, Computer Vision, OpenCV, Machine Learning, AI, ML, Analytics, Deep Learning
- **Soft Skills:** Collaborator, Planner, Problem Solver, Analytical Skills, Multi-tasker, Flexible, Excellent verbal and written communication skills

## Internship

- **Machine Learning Intern** [CERTIFICATE](#)

*LogicLens Solutions Private Limited* | 07/2024 – 12/2024

- Designed and implemented real-time computer vision systems for facial recognition, object detection and video analytics using YOLO and FaceNet models.
- Developed and optimized deep learning models with TensorFlow, PyTorch and OpenCV.
- Collaborated with cross-functional teams to integrate AI models into real-world applications.
- Gained hands-on experience in video analytics and real-time surveillance systems.

## Experience

- **Data Analyst**

*Balaji Aluminium Extrusions Pvt. Ltd* | 08/2018 – 07/2022

- Proficient in collecting, cleaning and analyzing large datasets using tools like Excel, SQL and Python (Pandas, NumPy) to identify trends, optimize processes and support data-driven decision-making in manufacturing and operations.
- Skilled in performing exploratory data analysis (EDA), statistical modeling and data visualization to uncover hidden patterns, detect anomalies and generate actionable recommendations.
- Analyzed sensor data to identify patterns and diagnose faults under varying operating conditions, demonstrating strong data wrangling and analytical skills.

## M.Tech Thesis

- **CLUSTER ADAPTATION NETWORKS FOR UNSUPERVISED MULTI-TARGET DOMAIN ADAPTATION**

- Developed a deep learning framework for fault diagnosis using unsupervised multi-target domain adaptation.
- Evaluated model performance using classification accuracy, macro F1 score and t-SNE visualizations for feature distribution.
- Compared the proposed method against state-of-the-art domain adaptation models to demonstrate superior generalization across multiple domains.
- Applied the approach to the CWRU bearing dataset, showing improved performance in diagnosing faults under varying operating conditions.

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## Projects

- **Creating Automatic GIFs from Videos** [Link](#)
  - This project automates the process of creating GIFs from video files.
  - It extracts audio, detects silences, transcribes them, and generates high-quality GIFs with text overlays.
  - Powered by Python with libraries like moviepy, pydub, and Whisper for transcription, it simplifies the creation of engaging GIFs from your video content.
  - Perfect for social media, tutorials, and presentations.
- **Book Recommender System** [Link](#)
  - This is a machine learning project built using python and flask app.
  - It uses collaborative filtering and popularity-based filtering techniques to provide personalized movie recommendations.
  - The system is deployed on Render, making it easily accessible via a web interface.
  - Users can explore and discover movies based on their preferences and past ratings.
- **Laptop Price Predictor Project** [Link](#)
  - Created a tool to predict laptop prices using linear regression.
  - Developed a user-friendly interface with Streamlit to make it easy for users to interact with the predictor.
  - Successfully deployed the app on Streamlit Community Cloud for wider accessibility.
  - Demonstrated skills in machine learning, software development, and cloud deployment through this project.
- **An API based NLP application created using Tkinter and OOP** [LINK](#)
  - NLP application constructed with Tkinter and OOP principles.
  - Offers text analysis functionalities through APIs.
  - GUI enables user-friendly interaction with the application.
  - Users input text and conduct NLP analysis effortlessly.
- **Created Story on 120 Years of Olympic History on Tableau** [LINK](#)
  - Developed comprehensive Tableau visualization of 120 years of Olympic history.
  - Highlighted key events, medal counts, and participating countries.
  - Utilized data analytics techniques for insightful presentation.
  - Employed visualization techniques for engaging and informative display.

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## Certifications

- Python Core Programming Course (05/2023 - 07/2023) [CERTIFICATE](#)
- Expert in Machine Learning & Data Analysis (07/2023 - 12/2023) [CERTIFICATE](#)
- Certified Quality Core tools by Quality Hub India (05/2020) [CERTIFICATE](#)

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## Academic Credentials

- **M.Tech. (Data Science)**  
Defence Institute of Advanced Technology, Pune (2023-2025) with 7.90 CGPA
- **M.Tech. (Metallurgical and Materials Engineering)**  
IIT ROORKEE (2014-2016) with 7.088 CGPA.
- **B.Tech. (Mechanical Engineering)**  
Galgotias College of Engineering & Technology (2009-2013), Secured 72.74% marks
- **XII (Science)**  
Passed in 2008. Secured 78% marks.
- **X (Science)**  
Passed in 2006. Secured 73% marks.

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## Personal Details

- **Linguistic Abilities:** English, Hindi
- **Nationality:** Indian
- **Marital status:** Unmarried
- **Address:** Udham Singh Nagar, Uttarakhand