

Diwan Singh Chauhan

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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.

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.

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 <u>Link</u>

- 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.

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
- Professional in Product Design in Auto Cad & Solid Woks.

Academic Credentials

M.Tech. (Data Science)

Defence Institute of Advanced Technology, Girinagar, Pune (2023-2025)

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.

Experience

Quality Assurance Engineer

Balaji Aluminium Extrusions Pvt. Ltd | 08/2017 - 07/2023

- Proficient in maintaining quality documents, conducting internal audits and implementing improvement methodologies like Kaizen and problem-solving techniques to enhance product quality.
- Skilled in utilizing advanced testing and inspection techniques, including statistical process control (SPC), metallography and CAD software (Solid Works), ensuring compliance with design specifications and technical standards.
- Experienced in root cause analysis, CAPA implementation and utilizing QC tools to address customer complaints, reduce rejection rates and drive continuous improvement initiatives throughout the production process.

Personal Details

Linguistic Abilities: English, HindiNationality: Indian

Marital status: Unmarried

Address: Udham Singh Nagar, Uttarakhand