

Diwan Singh Chauhan

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***Objective***

To work in a dynamic and innovative tech environment where I can apply my skills in Python programming, data science, 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](https://diwansinghchauhan.github.io/portfolio/images/LogicLens.png)

*LogicLens Solutions Private Limited* l *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](https://github.com/diwansinghchauhan/Creating-Automatic-GIFs-from-Videos)

* + 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](https://github.com/diwansinghchauhan/Book-recommender-System)

* + 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](https://github.com/diwansinghchauhan/Laptop-Price-Predictor-Using-Linear-Regression)

* + 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](https://github.com/diwansinghchauhan/nlpapp)

* + 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](https://public.tableau.com/app/profile/diwan.singh.chauhan/vizzesv)

* + 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](https://digistackedu.com/certificate/DSE1230043-Diwan-Singh.pdf)
* Expert in Machine Learning & Data Analysis (07/2023 - 12/2023 [CERTIFICATE](https://digistackedu.com/certificate/DSE1230059-Diwan-Singh.pdf)
* Certified Quality Core tools by Quality Hub India (05/2020) [CERTIFICATE](https://diwansinghchauhan.github.io/portfolio/images/qualityhubindia.jpg)
* Professional in Product Design in Auto Cad & Solid Woks.

***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.

***Experience***

# Quality Assurance Engineer

*Balaji Aluminium Extrusions Pvt. Ltd* l *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, Hindi
* **Nationality**: Indian
* **Marital status**: Unmarried
* **Address:** Udham Singh Nagar, Uttarakhand