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 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**

  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 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.

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, 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