Mohit Solunke

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Profile Summary

AI Engineer and Data Scientist with six months of internship experience in AI & Data Science, specializing in NLP, computer vision, deep learning, and scalable AI Product deployment. Developed high-performance models.

Education

- **Dr. D. Y. Patil Institute Of Engineering Management and Research, Akurdi** — Pune, India
  Bachelor of Engineering - AI & Data Science (2025 Batch); GPA: 8.81 — *July 2021 - July 2025*
  Courses: *GenAI Certification, Data Science, Artificial Intelligence, Machine Learning, Data Stucture&Algorithms*

Skills Summary

- **Languages**: Python (Pandas, NumPy, Matplotlib, Scikit-learn), SQL
- **Frameworks**: TensorFlow, PyTorch, Keras, FastAPI, NLTK, Flask, OpenCV, LangChain,Langraph, HuggingFace
- **BI Tools & Environments**: Power BI, Tableau, Excel, Jupyter Notebook, Google Colab, VS Code, GitHub, Anaconda
- **Databases & Automation Tools**: MySQL, PostgreSQL, MongoDB, n8n, Relevance.ai, Langflow, Make.com
- **Cloud & MLOps Platforms**: AWS (S3, EC2, SageMaker), Google Cloud Platform (Vertex AI), Azure ML, MLflow, Docker, Git, CI/CD (basics)
- **Soft Skills**: Analytical Thinking, Problem Solving, Effective Communication, Stakeholder Collaboration, Data Storytelling
- **Technical Skills**: Data Structure and algorithms, Machine Learning, Deep Learning (CNN, RNN), Reinforcement Learning, Transfer Learning, Natural Language Processing, Computer Vision, Artificial Intelligence, Large Language Model, Data Engineering, Statistical & Mathematical Analysis, Prompt Engineering, LLM, Agentic AI, Data Analytics, Data Science

Experience

- **CodeSoft Pvt Ltd** — Remote
  Data Scientist Intern (Internship) — *Dec 2023 - Jan 2024*
  - **Data Preprocessing**: Worked with raw datasets to clean and organize the data using Python libraries like Pandas and NumPy. This involved handling missing values, encoding categorical variables, and applying normalization techniques to get the data ready for machine learning.
  - **Exploratory Data Analysis (EDA)**: Performed in-depth data analysis to uncover patterns, trends, and relationships. Used tools such as Seaborn and Matplotlib to create visual summaries like boxplots, histograms, and heatmaps, helping the team understand the data and make decisions about feature selection.
  - **Model Developement**: Built and tested machine learning models including Linear Regression, Decision Trees, and K-Nearest Neighbors using Scikit-learn. Evaluated model performance with metrics like accuracy and confusion matrix, and applied techniques like train-test split and cross-validation to ensure reliable results.
- **RadicalX** — Remote
  Artificial Intelligence Intern (AI/ML Domain) (Part -time) — *Nov 2023 - Jan 2024*
  - **AI Model Development**: Developed and fine-tuned AI models for NLP and Computer Vision, improving model accuracy by 25% and reducing inference time by 40%.
  - **Deployment**: Deployed AI models into production, scaling solutions to handle 1M+ requests per day with 99.9% uptime on AWS and Databricks.
  - **Collaborative Research**: Researched and implemented cutting-edge AI techniques, increasing automation efficiency by 35% in real-world applications.
- **Amazon MLSS' 23** — Remote
  Apprenticeship (Deep Learning) — *july 2023 - Aug 2023*
  - **Applied AI**: Implemented deep learning techniques from Amazon scientists, improving model accuracy by 30% across real-world projects in NLP and Computer Vision.
  - **Classical ML**: Optimized classical ML algorithms for complex datasets, reducing processing time by 40% and enhancing predictive performance by 20%.

Projects

TripAI– AI-powered Travel Planner *(Next.js + Python + FastAPI)*:

Developed a **full-stack AI travel assistant using Next.js, Express.js, and FastAPI. Integrated multi-model NLP chatbot with Hugging Face and Groq APIs** to offer real-time travel support and crisis alerts. Enabled personalized itinerary generation from user preferences and added hotel search via **Booking.com API. Built secure JWT authentication, voice-based chat, interactive games, and trip visualization features.** Architected with modular services and robust fallback/error handling mechanisms for scalability and resilience. **(April '25)**

Car Number Plate Detection using Convolutional Neural Networks *(Computer Vision)*:

Developed an AI-powered system to detect and recognize car number plates using **Convolutional Neural Networks (CNNs)**. Utilized **OpenCV and deep learning** frameworks to ensure accurate detection and segmentation. Integrated **Optical Character Recognition (OCR)** to extract alphanumeric data. This system is ideal for applications like **traffic monitoring, automated toll collection, and parking management**, streamlining operations and reducing manual effort. **(September '24)**