Kshitij Dalvi

+91 **9029895438** | kshitijdalvi22@gmail.com
github.com/kshitijdalvi4 | linkedin.com/in/kshitij-dalvi-594b90226

EDUCATION

VIT Bhopal University, Bhopal, Madhya Pradesh **September 2022 - May 2026**
B.Tech in Computer Science and Engineering (Specialization in AI and Machine Learning)
CGPA: **8.69** / 10.0

TECHNICAL SKILLS

Languages: Python, C++, Java, C#, SQL (MySQL)
Technologies/Tools: Deep Learning, Machine Learning, Data Science, Artificial Intelligence, **NLP**, NLTK ,**OpenCV**, **PyTorch**, Tensorflow, **Roboflow**, **AWS**, Numpy ,Pandas, LLM , Matplotlib , Scikit-Learn , OpenAI Gymnasium
Core Skills: Object Oriented Programming, Databases, Discrete Math, Data Structures, Operating Systems, Computer Networks, Data Visualization, Artificial Neural Networks, Reinforcement Learning, Fuzzy Logic
Developer Tools: Git, Docker, Visual Studio Code, GitHub.

PROJECTS

Optimising LeetCode Question Solving **July 2025**
*Tech Stack: Python, **PyTorch**, Transformers (**BERT**), **NLP**, Pandas*
- Engineered an **NLP** platform to generate Conceptual MCQ and Code Snippets, leveraging **BERT** models for improved analytics.
- Designed a pipeline with flexible batch size, achieving a **3.2x** speedup than CPU-baseline
- Reduced overhead with memory-efficient tokenization, resulting in quick identification of conceptual gaps.

Automated ETL Pipeline for NLP-Powered Customer Feedback **June 2025**
*Tech Stack: Python, **PyTorch**, Transformers (**BERT**), **NLP**, SQL, **AWS***
- Architected an ETL pipeline to process review feedback for customer support ticket generation
- ETL: Pulled reviews and data from API to storing CSV data in **AWS S3**, handling missing values and data cleaning for database analysis, drawing insights from **30,000+** reviews.
- **NLP** Model Implementation: Fine-tuned a **BERT** base-uncased model, performing low-latency sentiment-intent analysis on feedback.

Cityscapes **December 2024**
*Python, **OpenCV**, Pix2Pix GANs, Feature Detection (**SIFT**, **HOG**, Harris), **3D Geometry***
- Leveraged Epipolar geometry for conversion of 2D images to 3D models using **SIFT** and Canny detectors, reducing processing time.
- Integrated Gaussian noise reduction and Harris feature-matching techniques, leading to seamless outputs and **100%** positive reviews on CivitAI.

Computer Vision: Knee Osteoarthritis Detector **December 2024**
*Tech Stack: Python, **OpenCV**, **Roboflow**, **YOLO**, Medical Image Processing*
- Developed an object detection model trained with **YOLOv8** to classify Knee Osteoarthritis into **5** distinct grades, achieving precision of **59.1%** and recall of **85.0%**
- Executed dataset management with **Roboflow**: Ingested **1.4k+** pre-annotated images using **OpenCV** techniques, expanding mAP@50 to **72.7%**

CERTIFICATIONS

- **Ethnus AWS Certified Cloud Practitioner** - Foundational knowledge of **AWS** Services and architecture
- **Applied Machine Learning in Python** (*Coursera*) - Mastered scikit-learn for classification, regression, clustering, and evaluation

ACHIEVEMENTS

- **Smart India Hackathon 2024 Finalist** (Internal Round) - Established data-flow model and schema of gamified learning application, ranking **Top 10** in team participants
- **Mentor, AI Club** - Conducted live workshops and project building for junior researchers, focusing on **CNN** and **Computer Vision** applications.

EXTRACURRICULAR ACTIVITIES

Tech Team Lead, AI Club June 2024 - March 2025
- Mentored a team of **10+** developers and researchers, spearheading documentation of **4+** DL research papers and **7+** practical AI projects.

General Secretary, Freelancing Club January 2024 - May 2025
- Scaled club participation to **600+** members, facilitating collaboration between team members.