Kunal Latkar

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Education

MIT World Peace University, Pune — B.Tech in CSE (AI & Data Science) Oct 2022 - 2026

- CGPA: 8.08 / 10
- **Relevant Courses**: Machine Learning, NLP, Data Engineering, Operating Systems, AI, Cognitive Computing

Technical Skills

Languages: Python, C, C++, HTML, CSS, R

Libraries/Frameworks: TensorFlow, Scikit-learn, Pandas, Matplotlib, Tkinter, Streamlit.

Databases: MySQL, MongoDB.

Tools: Tableau, Power BI, Git, and GitHub.

Professional Experience

Python Developer Intern, Futura Apsol Pvt Ltd July 2025 – Jan 2026

- Building a real-time computer vision system using CNN and YOLO for defect detection and classification tasks.
- Use of a responsive PyQt GUI integrated with the detection pipeline.
- Optimized model performance for deployment with improved inference time.

Projects

Water Quality Classification Machine Learning Project

- Predicted water contamination using scikit-learn and **NVIDIA cuML** on government-labeled datasets based on **WHO/CPCB guidelines**.
- Trained machine learning models, including **XGBoost, Random Forest, and AdaBoost, achieving 95%+ accuracy**
- **Implemented data preprocessing**, labeling, and result visualizations to support clear analysis and reporting.
- Github: https://github.com/Water-Quality-Contamination-Classification.

Image Captioning System Deep Learning / CV Project

- Built a **custom image dataset** of the MIT-WPU campus and trained a **CNN + BiLSTM** model to generate descriptive captions for images.
- Applied **regularization techniques**, noise augmentation, and learning rate scheduling to enhance model performance and generalization..
- Achieved good caption relevance and **accuracy of 78%** on the test dataset, validated through the evaluation metric.
- GitHub: https://github.com/KunalLatkar/Image-Captioning-System.

Automatic Question Generator NLP Project

- Implemented question generation from user-provided PDFs, images, or text using **T5** and **BART**.
- Integrated OCR and used datasets like **SQuAD (150K+ questions)** and **SciQ (13K+ questions)** for fine-tuning.
- Generated 20–50 questions per input unit within **30 seconds (BART)** or **120-180 seconds(T5).**
- Github: https://github.com/KunalLatkar/ISSAK.

Achievements and Activities

- Secured **3rd place in HackMIT-WPU 2025 Ideathon**.
- Technical Team Member at **Google Developer Student Club, MIT-WPU**.
- Member of **Career Development Club** and Higher Studies Cell.