Yash Agarwal

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EDUCATION

Graphic Era Hill University   Uttarakhand, India
Bachelor of Technology in Computer Science & Engineering (Honors in ML & AI)   *August 2023 – July 2027*

PROJECTS

Kidney Stone Detection Model   March 2025 – Present
- Developed a binary classifier for ultrasound scans using TensorFlow and convolutional neural networks.
- Applied OpenCV preprocessing (thresholding, contour extraction) to enhance image quality.
- Employed data augmentation (rotation, scaling, flips) to improve model generalization.
- Packaged inference as a Flask + Docker endpoint and monitored performance with AWS SageMaker Model Monitor.
- Achieved a classification accuracy of 92% through the tuning of learning rates, batch sizes, and dropout rates.

Celebrity Comment Real vs Fake Classifier   February 2025 – April 2025
- Developed an NLP pipeline using spaCy for tokenization, lemmatization, and stopword removal.
- Compared Naive Bayes, SVM, and BiLSTM models in TensorFlow; selected BiLSTM achieving 89% F1 score.
- Deployed as a Dockerized Flask REST API; tracked metrics and latency via Grafana.
- Validated model robustness with cross-validation and confusion matrix analysis.

TECHNICAL SKILLS

Machine Learning: TensorFlow, scikit-learn, Keras, AWS SageMaker
Data & Visualization: pandas, NumPy, Matplotlib, OpenCV
NLP: spaCy, NLTK, Hugging Face Transformers
Deployment & DevOps: Flask, Docker, AWS Lambda, Render, Git, GitHub Actions, CI/CD, Docker Compose, Grafana
Soft Skills: Teamwork, Communication, Problem-solving

CERTIFICATIONS

AWS Certified Machine Learning – Specialty

AWS ML Engineer Associate Learning Path

AWS Cloud Quest: Machine Learning

AWS Cloud Practitioner Essentials

Machine Learning Essentials for Business and Technical Decision Makers

AWS ML Engineer 4.3: Secure AWS ML Resources