

Shyam Krishna Sateesh

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EDUCATION

New York University

Master of Science in Computer Science; GPA: 3.9/4.0

Expected May 2027

New York, NY

PES University

Bachelor of Technology in Computer Science; GPA: 3.8/4.0

May 2025

Bengaluru, India

TECHNICAL SKILLS

Languages: Python, C++, Java, SQL, JavaScript, MATLAB, R, C

ML Frameworks: PyTorch, TensorFlow, Scikit-Learn, Keras, Hugging Face Transformers, LangChain, OpenCV

Tools: Docker, AWS, GCP, Git, Linux, MongoDB, React, D3.js, Pandas, NumPy, Jenkins

EXPERIENCE

Machine Learning Research Intern

Cognitive Science Lab, IIT-Hyderabad

Jan 2025 – Jun 2025

Hyderabad, India

- Built end-to-end Python ETL pipeline preprocessing large-scale EEG datasets (40M+ data points) with DSP techniques, resolving electrode mapping and trial synchronization issues across 100+ participants.
- Engineered automated spectral analysis pipeline computing Inter-Subject Correlation across 4,000 permutations, identifying Alpha band (Cohen's $d = 0.55$) as key neural biomarker through statistical validation.

Computer Vision ML Engineer Intern

Paralaxiom Technologies

Jun 2024 – Sep 2024

Bengaluru, India

- Built and open-sourced India's largest public safety dataset (66k+ images, 350k+ annotations), training and deploying fine-tuned YOLOv8 model achieving 75%+ mAP₅₀ for real-time threat detection systems.
- Deployed video segmentation pipelines using Meta's SAM2 model on distributed GPU servers, implementing automated inference workflows achieving 0.81 IoU for production safety monitoring.

Machine Learning Intern

Shopalyst

Jun 2023 – Aug 2023

Bengaluru, India

- Optimized NLP pipeline implementing TF-IDF and Universal Sentence Encoder models, conducting A/B testing that improved production CTR by 12% across 10k+ daily queries with statistical significance ($p < 0.05$).
- Trained and deployed Mask R-CNN instance segmentation model on 2,500+ product images using PyTorch, achieving 0.92 Mean IoU and reducing manual annotation workflows by 40%.

PROJECTS

NYC Geospatial ML Platform | React, D3.js, Python, PyTorch, tile2net

Sep 2025 – Dec 2025

- Engineered full-stack platform processing 3,740+ semantic segmentation inferences from 11 years of satellite imagery, building scalable ML pipeline compressing 112GB to 7.5GB (93% reduction) with dual visualization system.

Multimodal Emotion Recognition | PyTorch, EfficientNet, Transformers

Apr 2024 – May 2025

- Best Capstone Award:** Architected dual-stream fusion pipeline (EfficientNet-audio, ResNet-Transformer-video) with novel temporal attention, achieving 80.84% accuracy and +4% Dominance prediction improvement.

EEG Emotion Classification | TensorFlow, Bidirectional LSTM

Feb 2024 – Jul 2024

- Designed deep learning system preprocessing 40M+ EEG signals, training Bidirectional LSTM achieving 90.7% accuracy, outperforming benchmarks by 5%. Published in ICDSA 2024.

Few-Shot Audio Classifier | Prototypical Networks, PyTorch

Sep 2024 – Present

- Developed meta-learning system achieving 78% accuracy with 15 samples per class (11.5% improvement). Published survey in MIWAI 2024.