

VIKHRAM S

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Portfolio · LinkedIn · GitHub · Hugging Face · Google Scholar

OBJECTIVE

AI/ML Research Engineer specializing in Vision-Language Models, Explainable AI, and Retrieval-Augmented Generation, with a peer-reviewed, Scopus-indexed first-author publication and an internationally recognized applied-AI initiative developed in partnership with UN Women and India's Ministry of Electronics and Information Technology. Pursuing full-time Machine Learning Engineer, AI Research Scientist, and Applied Scientist roles to architect, train, and deploy production-grade AI systems at scale.

EDUCATION

Bachelor of Engineering, Electronics and Communication Engineering

2022 – 2026

Saveetha Engineering College, India

CGPA: 8.10/10.0. Coursework: Machine Learning, Deep Learning, Digital Signal Processing, Computer Vision, Natural Language Processing, Probability and Statistics, Data Structures and Algorithms.

SKILLS

- **Languages:** Python, SQL, JavaScript, C++
- **ML/DL Frameworks:** PyTorch, TensorFlow, Hugging Face Transformers, Scikit-learn, OpenCV, Unsloth
- **AI Specializations:** Vision-Language Models (VLMs), Vision Transformers (ViT), Large/Small Language Models (LLMs/SLMs), Retrieval-Augmented Generation (RAG), Explainable AI (XAI), QLoRA Fine-Tuning, Prompt Engineering
- **Domains:** Multimodal Learning, Medical Imaging AI, Clinical NLP, Legal NLP, Computer Vision, Model Evaluation & Interpretability
- **Backend / MLOps:** FastAPI, Streamlit, REST API Design, Git/GitHub, Docker, Model Deployment, Hugging Face Hub, PyPI Publishing

EXPERIENCE

AI Engineering Intern (Agentic AI Track) – Jatayu Hackathon 2026

Mar 2026 – May 2026

Virtusa Consulting Services Pvt Ltd

India

- Architected and shipped **CodePerfect Auditor**, a healthcare revenue-integrity platform that automatically reconciles clinical documentation against billed ICD-10/CPT codes, surfacing every discrepancy through a traceable, evidence-linked audit graph.
- Engineered a clinical NLP extraction pipeline and a configurable rules engine for automated code-mapping and discrepancy detection with quantified revenue-impact scoring.
- Delivered a production-grade full-stack system (FastAPI backend, Streamlit interface) from concept to working demo within a competitive hackathon timeline, selected among the top agentic-AI submissions.

Team Lead & Corresponding Author , Undergraduate AI Research Project

2025 – 2026

Dept. of Electronics and Communication Engineering, Saveetha Engineering College

India

- Directed a student research team through the complete applied-AI research lifecycle as part of the final-year curriculum – problem formulation, model architecture, experimentation, and manuscript preparation – culminating in a first-author paper ranked in the top 15% of submissions at an international Springer-indexed conference.
- Engineered **ExplainableVLM-Rad**, a multimodal clinical decision-support system pairing Vision Transformers with BioGPT to generate structured, confidence-calibrated radiology reports with built-in interpretability.
- Investigated cross-modal architectures integrating perception, retrieval, and language reasoning for high-stakes, domain-specific decision-making systems.

Advisor, Tech Society

2025 – Present

Saveetha Engineering College

India

- Appointed by Mr. C. Obed Otto, Dean – ICT, to provide technical leadership within Tech Society, a peer-led community for collaborative learning, innovation, and skill development across technology domains.
- Architected and delivered 4+ advanced technical curricula spanning AI Agents, Quantum Machine Learning, Financial ML, and open-source AI tooling, upskilling 100+ student researchers on deployment-oriented ML workflows.

PUBLICATIONS

- [1] Jeffin Gracewell, J., Yuvaraj, J. and Vikhram, S., 2026, February. Explainable SLM-Guided Vision–Language Model for Multi-class Skin Lesion Recognition. In *International Conference On Innovative Computing And Communication* (pp. 611–622). Cham: Springer Nature Switzerland. Scopus, DBLP, zbMATH, EI Compendex indexed; ranked top 15% of reviewed submissions. doi.org/10.1007/978-3-032-30310-3_49
- [2] Vikhram, S. and Jeffin Gracewell, J., 2026, February. NariRaksha: Gender-Responsive AI for Women’s Safety. In *India AI Impact Summit 2026 Compendium – Real-World Impact of AI and Gender Empowerment: Casebook on AI and Gender Empowerment* (pp. 68–70). Ministry of Electronics and Information Technology (MeitY), Ministry of Women and Child Development (MWCD), and IndiaAI Mission, released in partnership with UN Women. 1 of 23 case studies selected globally from 235+ submissions across 50+ countries.
- [3] Vikhram, S., Jeffin Gracewell, J. and Yuvaraj, J., 2026. Explainable Vision-Language Generative Models for Radiology Report Image Synthesis and Interpretation. *Manuscript in preparation*.

PROJECTS & OPEN-SOURCE CONTRIBUTIONS

ExplainableVLM-Rad. Engineered a ViT + BioGPT vision-language pipeline (0.4B parameters) for interpretable radiology report generation with attention-based explainability and confidence-calibrated predictions. Released as a public model checkpoint on Hugging Face. (HF)

IndianConstitution & IndicConBench. Engineered and released an open-source legal NLP package for semantic search over India’s constitutional text, surpassing 33,000 cumulative PyPI downloads; extended it into IndicConBench, a bilingual (English/Hindi) benchmark of 8,400+ examples spanning QA, retrieval, reasoning, and classification tasks. (PyPI) · (HF)

NariRaksha-3B. Extended the published NariRaksha framework into an open research artifact: QLoRA fine-tune of Qwen2.5-3B-Instruct on a purpose-built 100K-row dataset of Indian women’s-safety scenarios spanning risk classification, structured reasoning, and applicable legal context. Released with full training methodology and transparently documented evaluation gaps as a reproducible baseline for follow-on research. (HF)

CERTIFICATIONS

- **Deep Learning Specialization** – DeepLearning.AI (Andrew Ng): Neural Networks, CNNs, RNNs, Sequence Models, Hyperparameter Tuning.
- **Google Cybersecurity Specialization** – Google. *Credential ID: 3VZ635P8BB58*
- **Dynamic Public Speaking** – University of Washington (Coursera). *Credential ID: UHK2J067KIKI*

HONORS AND RECOGNITION

- Individually recognized by senior UN Women leadership at the official India AI Impact Summit 2026 compendium launch for contributions to gender-responsive, public-interest AI.
- First-author publication flagged in the official acceptance notification as among the top 15% of all papers reviewed at ICICC 2026 (Springer LNNS series).
- Engaged directly with senior AI and policy leadership, including VP-level leaders at NVIDIA, the Director of Microsoft Research Africa, the Head of Research at Google Africa, and the Regional Director for UN Women Asia Pacific.