VRINDA KOHLI

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EDUCATION

Bachelor of Technology, Manipal University Jaipur · 2020 - 2024
Computer Science Engineering · CGPA : 9.31

RELEVANT EXPERIENCE

Research Assistant · August 2023 - Current
BITLab, Boston University · *Remote*

- Reviewed 8+ papers on the usage of LLM backed Agent Based Modeling and Simulation.
- Contributed to a LangChain based multi-agent environment for experimentation on inter-agent interactions.

Research Intern · May 2023 - August 2023
Delhi Technological University · *New Delhi*

- Devised a novel DistilBERT backed ensemble methodology for detecting metaphors in a poetry corpus.
- Conducted thorough literature review on Deep Learning aided Metaphor Detection, synthesizing findings from 15+ research papers, contributing to a solid knowledge base for future research.

Research and Development Intern · July 2022 - Nov 2022
Trish-i, IIT Mandi Catalyst · *Mandi*

- Finetuned YOLO and VGG based CNN architectures to predict 5 bone health conditions from X-Ray images with upto 94% accuracy.
- Deployed Flask prototypes for trained models.

PUBLICATIONS

- Cracking the Figurative Code: A Survey of Metaphor Detection Techniques · *Accepted (ADCIS'23)*
- Finding GAIA (Generative AI Art) Online · *Under Review*
- A Comparative Analysis of Wind Turbine Power Generation Forecasting · *Under Review*

PROJECTS

Finding GAIA: *JPEG-Compression Agnostic Detection of Generative Art on Social Media*

- Designed and implemented a lightweight ensemble architecture for detecting StyleGAN2-ADA and Stable Diffusion generated images.
- Achieved over 95% accuracy while using less than 20% of standard training data.

ART-ViT : *A vision transformer implementation for art classification.* · GitHub

- Used PyTorch to implement ab initio the ViT model outlined in the original research paper to obtain a test accuracy of 92%.

ShakespeareGPT : *Generatively Pretrained Transformer for generating Shakespearean-style quotes.* · GitHub

- Developed a small PyTorch-based GPT model from scratch with a Byte Pair Encoding tokenizer from HuggingFace.

SKILLS

Languages	Python, C/C++, JavaScript, SQL
Frameworks	PyTorch, PyTorch Lightning, Flask, Vue.js
Tools	Git, Linux, Figma, MySQL