VRINDA KOHLI

(+91) 8091701861 ◇ Email ◇ LinkedIn ◇ GitHub ◇ Website

EDUCATION

Bachelor of Technology, Manipal University Jaipur | 2020 - 2024
Computer Science Engineering | CGPA : 9.26
Awards: 4x Dean's List, Award for Academic Excellence | Minor: Data Science

EXPERIENCE

Machine Learning Engineer | Jan 2024 - Present
Gloroots | *Bengaluru, Karnataka*

- Orchestrated end-to-end enrichment pipeline for technical and sales teams, elevating data coverage by more than 90%.
- Leveraged open source LLMs (Mistral, LLaMA) for building 3 in-house applications, and designed custom AI agents.
- Contributing to development of embedding based job recommender engines, focusing on low latency reranking algorithms.
- Facilitating seamless API creation and integrations within the Django, MongoDB and PostgreSQL based product workflow.

Research Assistant | August 2023 - Jan 2024
BITLab, Boston University | *Remote*

- Developed a scalable tool for scraping product details from Amazon, successfully capturing 15+ attributes for over 30,000 products.
- Conducted sentiment analysis and experimentation on customer insights using scraped data to identify correlations between sales and the green attributes of skincare products.
- Contributed to a LangChain-based multi-agent environment for experimenting with inter-agent interactions, utilizing tools like SerpAPI and OpenAI models.

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

- Used transfer learning and transformer models for flash flood detection using geospatial raster imaging, improving performance by 8%.
- Implemented and validated 7 recent research papers on Deep Learning aided Metaphor Detection, including transformer and RNN based Siamese approaches.
- Achieved 2% average accuracy improvement over existing methods during experimentation.

Research and Development Intern | July 2022 - Nov 2022
Trish-i, IIT Mandi Catalyst | *Mandi, Himachal Pradesh*

- Developed end-to-end pipeline for classification task: from data collection and labeling to deployment via Flask.
- Trained VGG and YOLO based CNN architectures to predict 5 bone health conditions from X-Ray images with upto 94% accuracy using Tensorflow and Keras.
- Finetuned aforementioned models, leading to an 11% performance spike.

PUBLICATIONS

- Cracking the Figurative Code: A Survey of Metaphor Detection Techniques | Presented, ADCIS'23
- Finding GAIA (Generative AI Art) Online | *Under Review*
- Observing the Privacy-Utility Tradeoff in Differentially Private Medical Text Classifiers | *Under Review*

PROJECTS

AI Generated Art Detection : *JPEG-Compression Agnostic Detection of Generative Art on Social Media.*

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

GPT Implementation : *Generatively Pretrained Transformer for generating Shakespearean-style quotes.* | GitHub

- Developed a GPT model architecture and its components(tokenizers, multihead attention) from scratch using Python.

PATE Implementation : *Semi-supervised Knowledge Transfer for DL from Private Training Data.* | GitHub

- Implemented the seminal PATE paper for Differentially Private training using PyTorch and PySyft on the MNIST dataset.

SKILLS

Languages	Python, C/C++, JavaScript, SQL
Frameworks	PyTorch, PyTorch Lightning, Langchain, Flask, Django, FastAPI
Tools	Git, Linux, Figma, Google Cloud Platform (GCP)