

Ankith Savio Arogya Dass

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Summary

Innovative and results-driven AI/ML specialist graduating from an MSc in Artificial Intelligence and Machine Learning at the University of Birmingham, with a proven record of distinction. Proficient in Python and deep learning frameworks such as PyTorch and TensorFlow, I excel at translating complex theoretical concepts into robust, production-ready solutions that drive operational efficiency and innovation.

Education

- University of Birmingham**, MSc in Artificial Intelligence and Machine Learning Sept 2023 – Sept 2024
- Grade: **Distinction** (Year Average: 76.2)
 - Conducted novel research on Conditional Generative Models under the supervision of Dr. Alexander Krull.
- Nitte Meenakshi Insitute of Technology**, BE in Computer Science Aug 2019 – Aug 2023
- Grade: **Distinction** (CGPA: 8.56/10)

Experience

- AI/ML Intern**, Nethermind – Remote Oct 2024 – Jan 2025
- Designed and implemented an evaluation framework for AI agents, automating critical benchmarking to reduce environment setup time by 50%.
 - Led cross-functional development a video analysis tool for the TruthTok project, integrating VideoLLaMA2, OpenAI Whisper, and Llama 3; deployed via Ollama on A100 GPUs to generate automated summaries and descriptions of video content.
 - Implemented GPU Inference optimizations for video-to-text conversion, improving inference speed by 30% while maintaining 95% accuracy in content summarization.
 - Tech stack: Python, Docker, Ollama, Huggingface Transformers, FastAPI.
- Data Analyst Intern**, Cyclops MedTech – Bangalore, India July 2022 – Sept 2022
- Spearheaded analysis of eye-tracking datasets for the BalanceEye medical device, identifying redundancies in calculation workflows to improve operational efficiency.
 - Developed a one-shot algorithm for real-time saccadic eye velocity detection with 92% accuracy, leveraging lightweight machine learning models to enhance processing speed without compromising accuracy.
 - Tech stack: Python, Pandas, Numpy and Scikit-Learn.

Projects

- Agentic Ghost Writer** | [link](#) Jan 2025
- Developed a personalized cover letter generation that significantly reduces manual drafting time by leveraging Gemini and Hugging Face LLMs for multimodal document analysis.
 - Designed an Evaluator-Optimizer Workflow that iteratively refines drafts, ensuring higher relevance and alignment with job descriptions through automated feedback loops.
 - Built a modular AI framework for formatted document creation, enhancing consistency and contextual accuracy across different professional writing tasks.
- Generative Accumulation of Photons for Inverse Problems** | [link](#) Sept 2024
- Developed the Conditional Generative Accumulation of Photons (Conditional GAP) model, a novel conditional generative model designed to address ill-posed inverse image problems such as inpainting, colorization, and super-resolution.
 - Implemented cascaded training of five specialized models, optimizing performance across different noise ranges and achieving faster convergence on the FFHQ dataset (256x256 faces).

- Utilized Python, PyTorch Lightning, and Torchvision for model development, training, and image processing, leveraging an NVIDIA Tesla T4 GPU for accelerated computation.

Paper Recommendation System | [link](#)

May 2024

- Developed a scientific research paper recommendation system that delivers contextually relevant publications by analyzing a user's existing Zotero library and new submissions on arXiv.
- Utilized a pre-trained, fine-tuned BERT model (ScinCl) from HuggingFace, optimized for scientific text, to generate semantic embeddings of paper titles and abstracts, capturing nuanced relationships between publications.
- Leveraged Zotero and ArXiv APIs to keep recommendations latest, significantly improving reserachers ability to keep up with publications, by comparing user library with new submissions.

Brain MRI Segmentation | [link](#)

Feb 2024

- Developed and implemented advanced 2D and 3D image segmentation algorithms, enabling accurate differentiation of key brain tissues in T1-weighted MRI scans for diagnostic and research applications.
- Integrated Scikit-Image and OpenCV libraries to optimize image processing, refine tissue boundaries, and improve the isolation of the brain from the skull and background.
- Illustrated comparison between different algorithms and achieved high accuracy in tissue segmentation, validated by a Jaccard Coefficient of 0.89 and a Dice coefficient of 0.93.

Tools & Technologies:

Programming Languages: Python (Proficient), C++, SQL.

Development & Data Management: Git, Docker, MongoDB, Bash scripting.

AI/ML Frameworks & Libraries: PyTorch, TensorFlow, NumPy, Pandas, Hugging Face Transformers, OpenAI API, Retrieval-Augmented Generation (RAG), Agentic AI Frameworks

Publications

Eye-Tracking in Education: Analysing the relationship between Student performance and Videonystagmography Report

2023

Sandhya Dass, H.S Ramananda, A. *Ankith Savio*

10.1109/ICCAMS60113.2023.10526051

Cerftifications

Oxford Machine Learning Summer School

2024

Participated in advanced sessions on Generative AI and Multi-Agent Systems led by researchers from DeepMind, Meta, and University of Oxford (Remote)

TensorFlow: Advanced Techniques Specialization

2023

Score: 93%.

Deep Learning Specialization

2022

Score: 95%