Aashish Dhawan

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SUMMARY

AI/ML Engineer specializing in generative AI, deep learning, and large-scale model deployment. Experienced in multi-GPU training, scalable ML pipelines, cloud-based AI systems, and NLP. Passionate about building high-performance AI applications and deploying production-ready models at scale.

SKILLS

Programming Languages: Python, Java, C++
Tools: AWS, Kubernetes, MLFlow, AutoML, FastAPI, Docker
Databases: SQL, Oracle, MySQL
Libraries and frameworks: Pytorch, Tensorflow, Matplotlib, Pandas, Numpy, Git, MLOps, Huggingface, Keras, OpenCV

EXPERIENCE

AI & Machine Learning Engineer **August 2023 - Present**
Data Science and Research (DSR) lab, University of Florida Gainesville, Florida

- Built and fine-tuned **large language models** (LLMs) using multi-GPU training, reducing training time by 50% and improving translation accuracy for low-resource languages (+3 BLEU score).
- Created high-quality text-image datasets using **GANs and diffusion models**, strengthening multimodal machine translation.
- Integrated multilingual vision-language models (mCLIP) with NLP pipelines, improving low-resource language translations by 10%.
- Led AI projects, including chatbots, stock sentiment analysis, and fraud detection, delivering solutions across industries.

AI Engineer, Consultant **August 2023 - April 2024**
Atmosphere Apps Gainesville, Florida

- Deployed a multilingual AI-powered transcription & translation system using Whisper + GPT-4 on AWS, achieving 95%+ accuracy and serving 1000+ users.
- Built and deployed a GPT-based drug recommendation system, integrating OpenAI's API with real-time NLP keyword extraction, improving prescription accuracy by 20%.

Machine Learning Developer **January 2021 - May 2023**
GILM lab, University of Florida Gainesville, Florida

- Developed AI-generated medical images using GANs, expanding cancer research datasets by 50%, improving diagnostic model performance.
- Optimized a 3D fluorescence imaging simulation tool, reducing rendering and evaluation time by 70%.
- Applied deep learning (ResNet, VGGNet) to a 5,000-image cancer dataset, improving early diagnosis by reducing false positives by 15%.

Data Scientist **March 2020 - December 2020**
Flynote Bangalore, India

- Developed a dynamic pricing model using XGBoost Gradient Boosting, achieving 90% prediction accuracy and optimizing revenue strategies.
- Built a churn prediction model with 85% efficiency using Logistic Regression and Random Forest, enhancing customer retention.
- Engineered a destination recommendation engine, increasing conversion rates by 20% using K-Means Clustering and Neural Networks.
- Created a travel recommendation system using AI, increasing booking rates by 20%.
- Created interactive dashboards using Tableau, Power BI, and Matplotlib, enabling data-driven decision-making.

Research Assistant **December 2019 - March 2020**
UBTECH AI Lab, University of Sydney Sydney, Australia

- Implemented the M3SDA framework for large-scale image classification, leveraging distributed training to categorize 600,000+ images across 345 topics with 71–98% accuracy.

PROJECTS

TensorFlow Documentation Bot *Python, TensorFlow, OpenAI API, FastAPI* **Jan 2025**

- Developed an AI chatbot for real-time TensorFlow documentation assistance using RAG (Retrieval-Augmented Generation), OpenAI's GPT models, FastAPI, and AWS Lambda for instant, context-aware responses.
- Deployed with auto-scaling, handling 100K+ queries/month while optimizing retrieval efficiency and query latency.

EDUCATION

University of Florida **May 2023**
Master of Science in Computer Science Gainesville, Florida