Arnav Khamparia

arnavzz arnavkhamparia arnav.worko@gmail.com 9343958821 arnavkhamparia.netlify.app

Education

B.Tech in Artificial Intelligence and Machine Learning   2021 – 2025
Madhav Institute of Technology and Science   Gwalior, India
Relevant Coursework: Machine Learning, Deep Learning, Data Structures, Algorithms

Professional Experience

Machine Learning Intern   May 2024 – Aug 2024
Vivada Tech   Chennai, India
-Developed and optimized machine learning models using prompt engineering, improving SDK performance by 20% for AI evaluation and observability tools.
- Designed and integrated REST APIs and SDKs, reducing model deployment time by 15% and enabling seamless interaction with cloud-based ML pipelines.
- Authored technical documentation, increasing team onboarding efficiency by 30%.

Projects

Generative AI SEO Content Augmenter   Jul 2025
-Engineered a Generative AI-powered web application using LLM, Vite, and RAG to perform competitive SERP analysis and identify key content gaps for SEO optimization.
-Implemented a core feature leveraging AI to strategically augment user content by generating data-driven FAQs, Myth vs. Fact tables, and SEO-optimized FAQPage Schema markup.
-Designed and developed a responsive, intuitive user interface (UI) that streamlines the content strategy workflow for marketers, aimed at reducing manual research time and boosting content performance.

LangGraph Agentic Workflow   Feb 2025
Cybersecurity scanner
-Engineered an autonomous cybersecurity scanner using Groq API and LangGraph to orchestrate tasks for Nmap, Gobuster, FFUF, and SQLmap, reducing scan time by 50% (60–240 seconds) via concurrent processing.
- Built a Streamlit dashboard for real-time vulnerability tracking, enhancing user interaction and reporting accuracy for cybersecurity workflows.

Skills

Programming: Python, SQL

Machine Learning: TensorFlow, PyTorch, Scikit-learn, LangChain, LangGraph, Prompt Engineering, LLM, RAG

Tools and Platforms: Git, Streamlit, REST APIs, AWS

Domains: Deep Learning, Generative AI, Computer Vision, NLP, Cybersecurity, Data Structures & Algorithms

Publications

Liver Tumor Segmentation with U-Net, V-Net and AH-Net Using MONAI
Springer Book Series
Co-authored a study comparing U-Net, V-Net, and AH-Net for liver CT scan segmentation, achieving a top Dice score of 0.93 for volumetric analysis, contributing to improved diagnostic accuracy.

Accolades

MITS Alumni Community
Content Coordinator
Developed content strategies for newsletters and social media, increasing alumni engagement by 40% through targeted campaigns and event highlights.

Artificial Intelligence Club
Technical Lead
Led 10+ team projects and workshops on AI/ML, mentoring 20+ students in Python and TensorFlow, resulting in successful project deployments.