Aaditya Khanal

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EDUCATION

NORTHERN KENTUCKY UNIVERSITY   **Highland Heights, KY**
Bachelor of Science, Data Science with Business Analytics | Minor: Applied Statistics   *August 2022 – May 2026*
GPA 3.82 | Executive and Edge Award | Dean's List 5/ 6 semesters

PROFESSIONAL EXPERIENCE

Beats By Dre Externship   **Remote**
Consumer Insights Data Analyst   *September 2024 – October 2024*

- Utilized Python libraries such as pandas, NumPy, scikit-learn, Seaborn, and NLTK for efficient data cleaning, processing, of 100 thousand reviews each from 10 different headphone products.
- Implemented product sentiment analysis and Gemini 1.5 pro to extract actionable insights and enhance operational strategies.

Human Computer Interaction Lab at NKU   **Highland Heights, KY**
Student Researcher   *December 2023 – July 2024*

- Conducted comprehensive data analysis on a complex auction dataset of 27.2 million users using Python, R, SQL Server, and JavaScript.
- Analyzed human behavioral patterns and published findings at the MiPro 47th IEEE ICT and Electronics Convention in Croatia. Additionally, presented research at various events, including Poster at Capitol and NKU Research Celebration.

PROJECTS

Colorectal Cancer Prediction

- Implemented an end-to-end MLOps pipeline for colorectal cancer risk prediction using Git, Docker, Jupyter, Pandas, PyTorch, Mlflow, Flask, and Kubeflow on Minikube, streamlining data ingestion, model training, experiment tracking, and deployment.

Bargain Radar

- Developed an AI agent using OpenAI Frontier API, Hugging Face Transformers, LangChain, and Chroma vector database to predict prices, fine-tune models, and deploy an autonomous RAG deal-alert agent.

Campus GPT

- Built an end-to-end multimodal RAG QA agent for my university using FireCrawler for automated site crawling, LangChain orchestration, Google Gemini 2.5 Pro for retrieval-augmented answers, and GitHub Actions for CI/CD automation.

Tube2Text Agent

- Developed an AI agent leveraging CrewAI and Gemini 2.5 Flash to transcribe YouTube videos and generate SEO-optimized blog posts for seamless content repurposing.

Khutruke AI (Fidelity Hackathon Winner)

- Built a MERN-stack chatbot web app using OpenAI's GPT-4 API for personalized financial planning, integrating a cosine-similarity algorithm to recommend relevant YouTube videos based on chat history.

SKILLS

- **Languages:** Python, R, Java, JavaScript
- **Database and Cloud:** MS SQL Server, PostgreSQL, MySQL, Firebase, Mongo DB, Pinecone, AWS, Azure, GCP, Oracle Cloud
- **Tools and Libraries:** NumPy, Pandas, Matplotlib, Scikit learn, PyTorch, TensorFlow, LangChain, LangGraph, LangSmith, Git, Hugging Face, Linux, Flask, Power BI, Docker, RAG/CAG, OpenAI, Rest API, Azure Fabric, PySpark, Kafka, DeltaLake, Lake House, DVC, MlFlow, Synapse Analytics, Airflow, ETL/ELT Pipelines, Jenkins, Kubernetes, Circle CI, GitHub Actions, GitLab

LEADERSHIP EXPERIENCE

Northern Kentucky University, Data Science Club   **Highland Heights, KY**
Vice President   *May 2024 – Present*

- Co-founded Data Science Club, organizing virtual hackathon with 100+ participants and securing industry speaker from AT&T
- Represented NKU at University of Cincinnati 's Data Science Symposium, developed student project showcase platform, and mentored peers in STEM initiatives.

CERTIFICATIONS

Fundamentals of Deep Learning NVIDIA   *March 2025*
Oracle Cloud Infrastructure 2024 Generative AI Certified Professional   *July 2024*
Microsoft Azure AI Fundamentals Certification   *June 2024*