

Vira Rithy



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Portfolio



@rithyvira



Phnom Penh, Cambodia

PROFILE

Passionate about Data Science, LLMs, GenAI, and Multi-Agent AI Systems, with expertise in machine learning, data analytics, and cutting-edge AI applications. Skilled in extracting insights from complex datasets and delivering impactful solutions. Driven by innovation, collaboration.

EDUCATION

DataU Academy

Data Specialist

08/2023 - 01/2024

Institute of Technology of Cambodia

Bachelor of Engineering (BEng), Data Science

02/2021 - 02/2025

CERTIFIED LICENSE

SDOE : DevOps Engineering

SalaCyber

SHOW CREDENTIAL

IBM AI Engineering Specialization

IBM

SHOW CREDENTIAL

AI Engineering Bootcamp

Maven - AI Makerspace

SHOW CREDENTIAL

Machine Learning with Python-From Linear Models to Deep Learning

MITx MicroMasters

SHOW CREDENTIAL

REFERENCE

Sout Sombrathna

Data Engineer, DataTicon

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PROFESSIONAL EXPERIENCE

DataTicon

AI Engineer

02/2024 - Present

- **AI Data Analysis "Text-to-SQL, Voice-to-Chart"** **LLM** **CHAINLIT** **PYTHON** [SHOW PROJECT](#)
Built an AI tool using dynamic databases for text-to-SQL and text-to-chart outputs, enabling quick insights and efficient data visualization
- **Khmer Speech Recognition "Speech-to-Text EN-KH"** **PYTORCH** **HUGGING FACE** [SHOW PROJECT](#)
Fine-tuned OpenAI Whisper-Small for KH and EN, achieving a 37% WER. Deployed on Hugging Face with a Gradio-integrated UI.
- **Machine Learning "Forecasting Cambodia Tourism"** **ENSEMBLE** **PYTHON** **MLFLOW** [SHOW PROJECT](#)
Achieved 97% accuracy in forecasting monthly visitors (e.g., August 2024: Predicted 548K vs. Actual 547K) using an ARIMA-XGBoost ensemble with MLflow tracking.

DataU Academy

Data Specialist

08/2023 - 01/2024

- **Data Warehousing: "Global Cyclistic Company"** **SQL** **ETL** [SHOW PROJECT](#)
Transform massive datasets from diverse sources for accessible insights and powerful sales optimization analytics.
- **AI-Powered Sales Analysis & Forecasting** **PYTHON** **STREAMLIT** [SHOW PROJECT](#)
Developed a sales forecasting solution for Olist using SARIMAX, XGBoost, and LSTM (top performer), integrating Streamlit and Power BI for revenue, stock, and marketing insights.
- **Hazard Vulnerability Dashboard** **POWER BI** [SHOW PROJECT](#)
Analyzed Cambodia's hazard vulnerability index (2014-2019) at provincial/commune levels, assessing risks from storms, floods, and droughts, with Khmer and English support.

PERSONAL PROJECTS

AI Medical : Personalized Q&A Application

01/2025-Present

NEXT.JS **LANGCHAIN** **PINECONE** [SHOW PROJECT](#)

Developed a medical Q&A app with Gemini, Next.js, Pinecone, and Shadcn/ui, leveraging RAG to analyze medical reports and deliver personalized healthcare insights.

Legal AI Risk Management

12/2024-01/2025

QDRANT **CHAINLIT** [SHOW PROJECT](#)

Created an AI Risk Chatbot to educate 50 teams on AI risks, ethics, and mitigation, fostering responsible AI adoption and cross-team collaboration."



SKILLS

TECHNICAL

PYTHON

Data processing, ML model development, and API integration

NEXT.JS

Skilled in building scalable apps, SSR, SSG, and performance optimization.

DATA WAREHOUSING

ETL (Extract, Transform, Load), Deployment, Job Scheduling for data analysis

POWER BI

Transform raw data into actionable insights through extraction, cleaning, modeling, and visualization.

LLMs

Hands-on experience with Generative AI, Multi-Agent Systems, and AI chatbot development.

INTERPERSONAL

LEADERSHIP

Inspiring others through positive example, effective communication, and collaborative decision-making.

COMMUNICATION

Inspiring others through positive example, effective communication, and collaborative decision-making.

PROBLEM SOLVING

Prioritize analytical thinking, creativity, and a collaborative mindset to find innovative and effective solutions.

BUSINESS CONCEPT

Centers on delivering innovative products/services that address market needs, backed by a commitment to quality, sustainability, and exceptional customer experiences.