

VU TRONG CHAU

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EDUCATION

Troy University <i>Master of Science in Computer Science - Artificial Intelligence</i> GPA: 3.5 Key Courses: Analysis of Algorithms, Computer Architecture, Machine Learning, Advanced Artificial Intelligence, Data Visualization	Troy, Alabama July 2025
University of Sunderland <i>Bachelor of Engineering in Electronic and Electrical Engineering</i> UK 2:1 Honours (3.5 GPA equivalent) Key Courses: Embedded systems, Electronic Circuits and Devices, Electrical Power, Electronic Systems, Manufacturing System Design	Sunderland, UK July 2021

WORK EXPERIENCE

AI Evaluation Engineer <i>TELUS Digital</i> <ul style="list-style-type: none">Evaluated LLM and NLP systems using structured benchmarking and error analysis frameworks, reducing recurring failure patterns by 20%Designed human-in-the-loop (HITL) evaluation pipelines to refine model reasoning, safety alignment, and response consistencyAnalyzed semantic relevance and retrieval quality to improve ranking signals and downstream AI-driven decision systemsMonitored post-deployment model behavior to detect drift, anomalous outputs, and performance degradation trendsProduced high-quality supervised and reinforcement learning datasets supporting iterative model refinement	Sep 2025 – Present Remote
Advance Process Engineering (APE) Engineer <i>Techtronic Industries (TTI)</i> <ul style="list-style-type: none">Led data-driven optimization initiatives for high-volume manufacturing lines, improving yield and reducing defects using statistical modelingBuilt structured datasets from sensor logs and quality metrics to support large-scale root cause analysisApplied regression analysis, Design of Experiments (DOE), and multivariate techniques to identify key process driversDeveloped Python-based automation tools and dashboards to streamline KPI monitoring and engineering analytics	Aug 2021 – Dec 2023 Vietnam

PROJECTS

Healthcare Chatbot <i>Python, Flask, LangChain, FAISS, PyTorch, FastAPI, Docker, CI/CD</i> <ul style="list-style-type: none">Designed and deployed an LLM-powered healthcare assistant using Retrieval-Augmented Generation over 250,000+ medical recordsImplemented FAISS-based vector indexing and optimized prompt engineering, improving retrieval accuracy by 25%Architected FastAPI microservices with Docker-based CI/CD pipelines, reducing deployment cycle time by 40%Built scalable backend infrastructure for low-latency semantic search and response generation	Sep 2025 – Present
Threat Detection using Machine Learning <i>Python, Scikit-learn, XGBoost, Flask, Pandas, NumPy</i> <ul style="list-style-type: none">Developed ML models (Logistic Regression, XGBoost, Random Forest, Naive Bayes), achieving 92% accuracy on 72,000+ labeled textsEngineered semantic, syntactic, and sentiment features, increasing classifier performance by 15%Built a real-time moderation interface using Flask, generating severity scores and reducing review time by 40%	Jan 2025 – July 2025
Global Population Prediction <i>Python, Pandas, NumPy, D3.js, ETL Pipelines, Data Visualization, Flask</i> <ul style="list-style-type: none">Forecasted population trends (1960–2023) for 200+ countries using ML models, achieving <2% MAEBuilt interactive dashboards with choropleth maps and time-series visualizations to support research insightsAutomated scalable ETL pipelines reducing manual data updates by 60%	Jan 2025 – May 2025
Sleep Quality Prediction <i>Python, Scikit-learn, TensorFlow, CNNs, RNNs, Flask</i> <ul style="list-style-type: none">Built ML and deep learning models (CNNs, RNNs, Random Forest) to predict sleep quality from 70,000+ lifestyle and biometric recordsImproved precision by 20% over baseline models through feature engineering and model tuningDeveloped a real-time Flask interface providing personalized recommendations	Sep 2024 – Dec 2024

TECHNICAL SKILLS

Programming Languages: Python, SQL, C/C++, JavaScript
AI & Machine Learning: RAG, LangChain, FAISS, Hugging Face, Prompt Engineering, Scikit-learn, TensorFlow, PyTorch, CNNs, RNNs
MLOps & Data: FastAPI, Docker, CI/CD, ETL Pipelines, Pandas, NumPy, Tableau, Streamlit, AWS, GCP

CERTIFICATIONS

LLM Application Engineering and Development Simplilearn	Oct 2025
Data Science Methodology IBM	Sep 2025
Generative AI with Large Language Models DeepLearning.AI	Sep 2025