Nguyen Hoang Bao Nhat (Chris Nguyen)

Intern

0974 370 098 nhatnguyen625.contact@gmail.com Binh Thanh District, Ho Chi Minh city

CAREER OBJECTIVES

A highly motivated student with the foundation in deep learning and statistical modeling, seeking an AI/Data Internship. Eager to apply practical experience in building end-to-end models—across Computer Vision, NLP, and Time-series forecasting—to solve real-world industry problems. Aiming to contribute to impactful projects while further honing technical skills and learning from industry experts.

EDUCATION

VAN LANG UNIVERSITY 08/2023 - 08/2027

Junior Student of Data Science (*Specialization: Artificial Intelligence)*

Current GPA: 3.4/4

PROJECT

Leveraging Ray-Tracing Data for Real-Time Speech Transmission Index Prediction and Classroom Acoustic Feedback. 07/2025 - 05/2026

Role: Research Co-author | Type: Academic Research

Technologies: Python, PyTorch, XGBoost, OpenCV, FastAPI, Streamlit.

- Architected an end-to-end Computer Vision pipeline using OpenCV, implementing object segmentation and a custom spatial quantization algorithm that corrected 100% of camera hardware error.
- Engineered a artificial neural network and Surrogate Model (XGBoost) to predict acoustic quality, reducing data dependency by 94% while achieving $R^2 = 0.985$ and MAE = 0.0035.
- Deployed the live system via a FastAPI backend and Streamlit dashboard, achieving stable CPU-only quasi-real-time inference with automated IEC 60268-16 standard classification.

Vietnamese Student Feedback Sentiment Analysis 10/2025 - 12/2025

Role: Researcher | Type: Personal Project

Technologies: Python, PyTorch, Hugging Face, PhoBERT, Scikit-learn, pyvi, Pandas, NumPy.

- Fine-tuned the PhoBERT-base language model using PyTorch and Hugging Face Transformers to automatically classify raw student feedback into 3 polarities (Positive, Negative, Neutral).
- Preprocessed and tokenized Vietnamese text using the pyvi library (ViTokenizer) for optimal word segmentation, significantly improving the model's contextual understanding.
- Evaluated the model to achieve an overall Accuracy of 94.6% on a strict test set of over 3,100 samples, notably maintaining a 0.96 F1-Score in detecting "Negative" feedback to help university administration rapidly identify critical issues.

Atmospheric CO2 Concentration Forecasting (Academic Project) 09/2025 - 11/2025

Role: Team Leader (4 members) | Type: Academic Project

Technologies: Python, TensorFlow, Keras, Statsmodels, Optuna, Scikit-learn, Pandas, Seaborn.

- Developed an advanced time-series forecasting system to predict long-term global CO_2 levels by integrating the Southern Oscillation Index (SOI) to capture complex macroeconomic climate phenomena.
- Engineered and evaluated multiple predictive architectures, systematically comparing traditional statistical methods (SARIMA, SARIMAX) with modern Deep Learning networks (Univariate/Multivariate LSTM, Hybrid SARIMA-LSTM).
- Optimized model performance using Optuna for automated hyperparameter tuning and conducted rigorous exploratory data analysis, including Augmented Dickey-Fuller (ADF) tests and ACF/PACF correlation.
- Achieved an optimal Root Mean Squared Error (RMSE) of 0.5513 using the Multivariate LSTM architecture, outperforming baseline statistical models by over 44% in predictive accuracy.

SKILLS

Programming	Python, R, SQL (PostgreSQL)
Core Expertise	Time-series Forecasting, Computer Vision, Deep Learning, Statistical Modeling, NLP
AI/Data Science	PyTorch, Keras, TensorFlow, OpenCV, Statsmodels, Optuna, HuggingFace (Transformers), Scikit-learn
Data Analysis & Visualization	NumPy, Pandas, Matplotlib, Seaborn
Frameworks & Tools	FastAPI, Streamlit, Git, Docker, MinIO
Language	Vietnamese (Native), English (Intermediate)

ACHIEVEMENTS

Champion of VLU MedTech 2025	06/2025
Top 30 Swin -Biz - Rockstar 2025	10/2025

FURTHER DETAILS

LinkedIn: linkedin.com/in/chrisnguyenx05/
Github: github.com/ChrisNguyenx05