Nguyễn Gia Bình

04 / 01 / 2004
Hồng Hà, Hà Nội

CONTACT

0705157985

binhng707@gmail.com

https://github.com/nguyengiabinh

SKILLS

Programming: Python, JavaScript

AI/ML: TensorFlow, Keras, OpenCV, scikit-learn

Data Analysis: pandas, NumPy, Matplotlib, Seaborn, Tableau

Web Frameworks: Vue.js, FastAPI, Django

Cloud & DevOps: AWS, Docker

Database: MySQL, SQLite, Elasticsearch

Tools: Git, Draw.io, Confluence, Jira

ACHIEVEMENTS

RESEARCH

ICISN Conference, Hanoi (2025): "Adapting ASTGCN for Simultaneous Forecasting of Multi-Company Stock Prices"

ICECET Conference, Paris (2025): "Comparative Analysis of ML Models for Greenhouse Environmental Parameter Prediction"

LANGUAGES

English - IELTS 8.0

PROFILE

I am an AI major graduate with experience in time-series analysis and data analysis, plus some background in computer vision, AI agents, and cloud technologies. I can work independently or in teams, handling challenges with adaptability and problem-solving skills. Seeking an AI engineer position to build on my expertise.

EDUCATION

Swinburne University of Technology

Computer Science - Artificial Intelligence | 09/2022 - 09/2025

GPA: 3.0 / 4.0

WORK EXPERIENCE

FPT Smart Cloud

AI Engineer Intern | 03/2025 - 08/2025

- Collected and processed video datasets (violent/criminal behavior) to fine-tune a Vision-Language Model for behavior detection.
- Developed a web application with live video feed integration that detects and captures paper documents using a fine-tuned YOLO model. Invokes a VLM OCR pipeline and displays extracted text.
- Prompt Engineering: Experimented with and created prompts for LLM models to generate contextual questions based on customer provided documents and requirements.
- Developed a dashboard using Vue.js and Django to visualize analytics and manage data for the company's voicebot service.

PROJECTS

Bridge damage classification using CNN and LSTM

Team Size: 4 | Role: Core Developer | 02/2025 - 04/2025

Github: https://github.com/nguyengiabinh/COS40007-AIfE.git

- Tools & Technologies: Python, TensorFlow, Keras, Jupyter Notebook, Kaggle.
- EDA: visualize the data in its native form and convert it to frequency for deeper analysis
- Cleaned and processed bridge sensor data including feature engineering for the frequency-based model version
- Developed a two-stage hybrid deep learning architecture combining CNN, BiLSTM units and temporal attention to extract spatial-temporal features from bridge sensor data
- Applied residual connections and weight transfer between models to improve convergence, followed by cross-validation training to ensure robustness and generalizability in structural damage classification.

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PROJECTS

Adapting ASTGCN for Stock Forecasting

Team Size: 5 | Role: Researcher, Developer | 10/2024 - 01/2025

Github: https://github.com/dinhdung6/ASTGCN--research.git

- Tools & Technologies: Python, PyTorch, TensorFlow, scikit-learn, ASTGCN.
- Analyzed ASTGCN - originally used for traffic flow prediction, presented at the 2019 AAAI conference.
- Collected and processed stock data as a replacement for the PEMS04 traffic dataset.
- Experimenting, modifying, and fine-tuning the ASTGCN model for stock prediction tasks.
- Contributing to the writing of the research paper based on findings and results.

Face Recognition with Anti-spoofing

Team Size: 2 | Role: Core Developer | 10/2024 - 12/2024

Github: https://github.com/nguyengiabinh/CPU-only-Face-recognition.git

- Technologies: Python, Pytorch, OpenCV, DeepFace, VGG-Face.
- Developed a real-time face recognition system using DeepFace and OpenCV, integrating anti-spoofing mechanisms with Silent Face Anti-Spoofing.
- Implemented face detection and recognition modules using Caffe models, MTCNN and VGG-Face.
- Experiments with Real-ESRGAN for image enhancement under challenging conditions.

LSTMNet with Attention Mechanism for Greenhouse stat prediction

Individual | Role: Researcher, Developer | 09/2024 - 12/2024

Github:https://github.com/nguyengiabinh/LSTM-Att-for-indoor-greenhouse-condition-prediction

- Technologies: Python, PyTorch, LSTM, CNN, GRU, Attention Mechanism.
- Developed a hybrid deep learning model combining CNN, GRU, and LSTM architectures with scaled dot-product attention to forecast key greenhouse variables (temperature, humidity, CO_2, PAR) from multivariate sensor data.
- Integrated temporal convolution for short-term dynamics and recurrent layers for long-term dependencies, improving prediction stability under fluctuating weather conditions.
- Achieved accurate 30-minute ahead forecasting through optimized data windowing and normalization.