TRUONG PHAT-NGUYEN

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EDUCATION

Ho Chi Minh City University of Industry and Trade **Ho Chi Minh City, Vietnam**
Bachelor's in Information Sep 2020 – May 2024
- **Graduation thesis:** Building human action recognition applications
- **Specialized project score:** 9.0/10
- **Honors:** 3rd prize in the Student Scientific Research Competition (May 2024), HUIT Encouraging Scholarship Sem I, 2023/2024, Top 24 Vietnam Datathon 2023 Contest (Dec 2023), 3rd prize in the English Debate Competition about Information Technology (May 2023)
- **Relevant Coursework:** Statistical Probability, Linear Algebra, Machine Learning, Data Mining, Data Analysis and Forecasting, Deep Learning

Ho Chi Minh City University of Industry and Trade **Ho Chi Minh City, Vietnam**
Master's in Information Sep 2024 – Present

SKILLS

Programming Languages: Python, C, Java, C#, SQL, JavaScript, TypeScript, R.

Soft Skills: Problem-Solving, Teamwork, Communication, Leadership, Critical thinking, Analytical Thinking

Technical Skills: OpenCV, Numpy, Matplotlib, ASP.NET, Microsoft SQL Server, Tensorflow, Power BI, Tableau, TensorFlow, PyTorch, OpenCV

WORK & EXPERIENCE

New Tech Solutions **Ho Chi Minh City, Vietnam**
Software Engineer Apr 2024 – Sep 2024
- Participated in the Web Development Taskforce to provide **AngularJS** sites to internal customers.
- Developed and maintained websites using **ASP.NET**, focusing on back-end development and API
- Used Postman to test **API**, performing testing and debugging to ensure product quality

Financial Services Lenken **Remote** - **Ha Noi, Viet Nam**
Data Analyst Mar 2024 – Aug 2024
- Designed and implemented machine learning models using **Python** to enhance credit scoring accuracy and reliability
- I am engaged in researching, developing, and designing algorithms to assess and predict comprehensive customer risk profiles, particularly focusing on forecasting consumer behavior and spending habits.
- Designed the flow for the database using **PostgreSQL**, storage facilities, and processing to maximize the information accessible to customers

Hung Minh Group **Ho Chi Minh City, Vietnam**
AI Intern Jul 2023 – Jan 2024
- Supported the business by accurately extracting and preprocessing data from websites, **ensuring 90%** of the data was precise
- Addressed data mining challenges with tools by implementing users' behavior.
- Design and optimize data tables to increase analytical efficiency.

RESEARCH

RESEARCH ON COMMUNITY DETECTION ALGORITHM IN SOCIAL NETWORK DATA – APPLICATIONS TO BUILD BIPOLAR DATA IN THE FORM OF BIPOLAR GRAPH Feb 2024 - Aug 2024

The-Sang Do, Truong-Phat Nguyen, Advised by: **PhD.Bich-Ngan T. Nguyen**
- Researched algorithms to detect for the community are Greedy Modularity and Directed Louvain.
- Built bipartite graphs applied to social network data and graph data construction process

PROJECTS

Hospital Management System Website
- Designed and developed a full-stack hospital management web application for doctors, patients, and administrators.
- Implemented patient record management, appointment booking, and doctor dashboards using **FastAPI** (backend) and **Angular** (frontend).
- Utilized PostgreSQL for secure data storage and Docker for containerized deployment.
- *Tech Stack: **FastAPI, Angular, Python, PostgreSQL, AI/ML (Face Recognition), Github***

Healthcare Chatbot
- Researched and developed a Knowledge Graph using **Neo4j**, applying the **Aho-Corasick algorithm** for keyword extraction and **BiLSTM** to capture contextual semantics in queries.
- Integrated the **ReAct** (Reasoning + Action) framework by utilizing **LangChain** and **LangSmith** to enhance reasoning capabilities and dynamic agent-based interactions.
- Applied **GraphRAG** (Graph Retrieval-Augmented Generation) to improve response quality using structured medical knowledge graphs.
- *Tech Stack: **Neo4j, Python, LangChain, LangSmith, GraphRAG, Github***

Action-Recognition Website
- Research **LSTM algorithm** (Long Short-Term Memory), model **RNN** (Recurrent Neural Network), and using MediaPipe library of Google for action recognition
- Build the user interface for users using Streamlit.
- Tools Used: **Python**
- *Framework Used: **Streamlit.***

IoT Device Management Website
- Researched and built a database using SQL for the website.
- Provided real-time communication using an ASP.NET backend and AngularJS frontend.
- Build some features like adding, deleting, and editing products. User authorization and two-factor authentication features.
- Manage source code and project by Git.
- *Tech Stack: **C#, ASP.NET, Angular JS, GitHub.***

Credit Risk Scoring System
- Develop a flow for the database, storage facilities, and processing to maximize the information accessible to customers.
- Researched algorithms to evaluate and predict comprehensive customer risk profiles.
- *Tools Used: **Python, Postgresql, GitHub.***

CERTIFICATIONS

Certifications & Training: Data Analytics Certificate (Google), IT Automation with Python Certificate (Google), Machine Learning Certificate - DeepLearning.AI (Coursera), AI Essentials Certificate (Google)

LANGUAGE

English (Intermediate), Vietnamese (Native)