

Nguyen Hoang Bao Huy

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github.com/huynghuy410

As a Python-focused intern with a passion for learning and problem-solving, I am eager to gain hands-on experience in a startup environment. I have a solid foundation in programming and a keen interest in applying Python to support automation and software development tasks. My goal is to grow through continuous learning, collaboration, and contributing to projects that deliver real value to users.

PROJECTS

Email Spam Detection [🔗](#)

Aug 2024 - Nov 2024

Email Spam Detection is an end-to-end machine learning project that classifies messages and emails as spam or ham using TF-IDF features and Logistic Regression. It includes a real-time Flask web app and a Gmail integration for classifying recent emails via OAuth, with reproducible training and evaluation.

- Built with Python, scikit-learn, Flask, Gmail API, Pandas/NumPy
- Features: TF-IDF + Logistic Regression; SMOTE for class imbalance
- Dataset: UCI SMS Spam Collection (5,572 labeled messages)
- Performance: ~98% test accuracy with strong precision/recall
- Deliverables: Web app (real-time), Gmail classifier (OAuth), saved model/vectorizer (Joblib)

Vietnamese word embeddings [🔗](#)

Feb 2024 - Apr 2024

This project implements a Skip-gram model for generating word embeddings in Vietnamese text. The implementation includes text preprocessing, model training, and visualization of word embeddings.

- Vietnamese text preprocessing using pyvi tokenizer
- Custom implementation of Skip-gram model
- Word embedding generation
- Cosine similarity calculation for word pairs
- PCA visualization of word embeddings
- Support for both synonymous and antonymous word pairs

NLP - Multilayer Perceptron [🔗](#)

Aug 2023 - Nov 2023

This project implements a simple Multilayer Perceptron (MLP) neural network from scratch using Python. The implementation demonstrates the basic concepts of neural networks including forward propagation, backpropagation, and gradient descent.

- Implemented forward propagation, backpropagation, and gradient descent
- Trained a 2-2-1 network with sigmoid activations on the XOR problem
- Used random weight/bias initialization and mean squared error loss
- Ran 10,000 training epochs with periodic loss reporting
- Produced final predictions demonstrating successful XOR learning
- Clean, minimal, dependency-free code showcasing core NN mechanics

WORK EXPERIENCE

Tester

May 2025 - Present

MOBILE-ID TECHNOLOGIES AND SERVICES JOINT STOCK COMPANY

Vietnam

Project: Trusted Pay

Position: Tester

- Designed and executed test cases for the Trusted Pay application, focusing on transfer notification features.
- Performed API testing using Postman to validate transaction flows.
- Logged and tracked defects using OpenProject, collaborating with developers to ensure timely resolution.
- Contributed to improving the reliability and security of the payment notification system.

EDUCATION

Information Technology Engineer

Aug 2021 - Jan 2026

Saigon University

Study information technology with high quality systems

CERTIFICATIONS

SQL (Intermediate) Certificate by HackerRank

SQL (Basic) Certificate by HackerRank

LANGUAGES

English, B2

SKILLS

Tools: Git, Visual Studio Code, Cursor, Mysql Server, Postman

Programming Languages: PHP, Python, JavaScript

Version Control: Git

