

Bui Dang Khoa

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Objective

Seeking an AI/ML or Software Engineering internship to apply machine learning and deep learning techniques in real-world applications, particularly in healthcare AI and scalable software systems.

Education

Ho Chi Minh City University of Technology (HCMUT – VNUHCM) Ho Chi Minh City, Vietnam
B.Sc. in Computer Science – Japan-Oriented Program Sep 2022 – Present

- Relevant Coursework: Machine Learning, Data Structures and Algorithms, Operating Systems, Database Systems, Software Engineering

Projects

Multimodal Chronic Respiratory Disease Diagnosis using Transfer Learning Sep 2025–Dec 2025
Tech: Python, Deep Learning, Transfer Learning, DenseNet, XGBoost, Scikit-learn, Pandas, NumPy

- Developed a multimodal healthcare AI system combining medical imaging (chest X-ray images) and clinical patient data for chronic respiratory disease diagnosis.
- Applied transfer learning with DenseNet for feature extraction from medical images and integrated with structured clinical data.
- Addressed severe class imbalance using data resampling techniques including SMOTE and Random Over-Sampling.
- Built and optimized XGBoost models for disease classification and missing clinical data imputation.
- Improved minority-class performance: Recall from ~9% to ~43%, Precision up to ~96% after integrating clinical data.
- Demonstrated effectiveness of multimodal deep learning compared to image-only models in medical diagnosis tasks.
- Designed an end-to-end machine learning pipeline including data preprocessing, feature engineering, model training, and evaluation.

Technical Skills

Programming: Python, C++, Java, JavaScript

Machine Learning / Data: Pandas, NumPy, Scikit-learn, XGBoost, Data Preprocessing, Feature Engineering, Model Training, Model Evaluation

Software Engineering: Object-Oriented Programming, Data Structures and Algorithms, Git, Docker, Linux, Debugging

Database: MySQL, SQL

Languages

Japanese: JLPT N3

Dec 2025