

ACADEMIC CURRICULUM VIAE
THANG DINH QUOC

BANCHELOR OF ENGINEERING IN CIVIL ENGINEERING

Prospective Master's Research Applicant
Ho Chi Minh City, Viet Nam | +84 969 500 036
thang.dinhxaydungqsb@gmail.com
Research focus: FEM | Interpretable AI | Seismic RC Structures

---

| RESEARCH PROFILE

Early-career civil engineering researcher with a Bachelor of Engineering in Civil Engineering from HCMUT (GPA 3.1/4.0), hands-on Abaqus experience, and one published paper based on case nonlinear FEM and a machine-learning study of reinforced concrete beam stresses. Seeking a scholarship-supported master's research in seismic and computational structural engineering, focusing on validated nonlinear FEM and interpretable AI for reinforced-concrete shear-wall response and damage assessment.

| RESEARCH INTERESTS

- Nonlinear FEM of reinforced-concrete walls and buildings under cyclic and seismic loading.
- Interpretable and physics-guided machine learning for structural response and damage prediction.
- Experimental calibration and seismic assessment of reinforced-concrete structures

| EDUCATION

Ho Chi Minh University of Technology (HCMUT), VNU-HCM
Bachelor of Engineering in Civil Engineering
- GPA: 3.1/4/0 (134 credits); graduation classification: Good; capstone project: 7.9/10
- Strong performance in structural engineering coursework, including Strength of Material and Structural Mechanics (A).

| RESEARCH EXPERIENCE

Proposed Stress Correction Factors for Reinforced Concrete Beams Based on Finite Element Simulation and Machine Learning
Research Collaborator | HCMUT | Published conference paper
- Developed stress-correction factors by comparing transformed-section calculations with nonlinear Abaqus results and machine-learning predictions.
- Contributed to 3D Abaqus modeling using C3D8R elements, Concrete Damaged Plasticity, reinforcement interaction, mesh sensitivity, and stress extraction; supported 405 cases in RapidMiner.
- Regression models achieved R^2 values of 0.921 for reinforcing steel and 0.712 for concrete stress.

AI and Data-Driven Modeling for Civil Engineering
Research Collaborator and Co-author | HCMUT
- Co-authored a Springer conference paper applying DNN and Naive Bayes models to landslide susceptibility assessment using GIS-based terrain and geological factors.
- Conducted model validation and sample-size sensitivity analysis using ROC–AUC to evaluate overfitting, predictive reliability, and the influence of landslide inventory size.

| EXTRACURRICULUM ACTIVITIES

- Won third prize in THE FUTURE CIVIL ENGINEERING 2024 competition.
- Won first prize in CREATIVE ENGINEER 2024 competition.