Vo Hong Quan

AI Engineer

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PROFESSIONAL SUMMARY

Final-year Robotics & AI student with hands-on experience in deep learning, reinforcement learning, and computer vision. Passionate about developing practical AI solutions and pursuing a career as an AI Engineer.

EDUCATION   *8/2022 – Expected 8/2026*

HCMC University of Technology and Education | *Bachelor of Robotics and Artificial Intelligence*
Relevant Coursework: Machine Vision, Artificial Intelligence, Artificial Neural Network, Practice of Artificial Intelligence

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WORK EXPERIENCE

Research Assistant – Robotics Lab, HCMUTE   *2/2025 – Present*

- Supported reinforcement learning model training and real-time testing for control systems.
- Assisted in designing reward functions and tuning hyperparameters for reinforcement learning agents

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PROJECTS

Neurokit   *9/2024 – 10/2024*

- Built a lightweight autograd engine similar to PyTorch from scratch using NumPy.
- Implemented forward/backward propagation, automatic differentiation, activation layers, optimizers, dropout, and batch normalization.
- Designed modular structure for extensibility and experimentation with custom operations.

RL-Based Rotary Inverted Pendulum Controller   *2/2025 – 6/2025*

- Built a reinforcement learning environment using Simscape model of the rotary inverted pendulum.
- Implemented Soft Actor-Critic (SAC) with MATLAB RL Toolbox for continuous control.
- Swing-up Agent: reach upright in ~2s.
- Balance Agent: maintain stable position.
- Deployed final trained policy to ESP32 for real-time execution.

SKILLS

- **Languages**: Python, C/C++, MATLAB
- **ML/DL**: Supervised & Unsupervised Learning, Deep Learning, Reinforcement Learning
- **Libraries/Frameworks**: PyTorch, TensorFlow, Keras, scikit-learn, OpenCV, YOLO
- **Tools & Platforms**: Git, GitHub, Linux, Anaconda, Jupyter/Colab
- **Soft Skills**: Problem Solving, Analytical Thinking, Teamwork, Communication

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CERTIFICATIONS

- **TOEIC**: 715