

CURRICULUM VITAE

PERSONAL INFORMATION



DUONG Ly Cao

 Senior AI Researcher, Vision-in
 Doksan-dong, Geumcheon-gu, Seoul, Republic of Korea
 (+82) 10 9795 1602 / (+84) 327 810 901
 lycaoduong@gmail.com
Portfolio: <https://lycaoduong.github.io>

Gender Male | Date of birth 16/02/1995 | Nationality Vietnamese

I graduated from Ho Chi Minh City University of Technology and subsequently attained a Master's degree from Pukyong National University in Busan, South Korea, specializing in Electrical & Biomedical Engineering. My academic pursuits have predominantly revolved around signal processing and image processing, particularly within the domains of Automation Systems and Medical Devices. Currently, I serve as a Senior AI Research Engineer at Vision-in, where I am committed to diligently fulfilling my professional responsibilities.

EDUCATION

From September 2018
to September 2021

[Pukyong National University, Busan, Republic of Korea](#)

Master's degree in Electrical and Biomedical Engineering
Graduated date: 08/2020
GPA: 4.25 / 4.5

From August 2013 to
April 2018

[Ho Chi Minh City University of Technology](#)

Bachelor's degree in Biomedical Engineering
GPA: 8.0 / 10.0

WORK EXPERIENCE

From June 2022 to
now

[Senior AI Researcher at Vision-in Inc.](#)

Responsibility:

My professional responsibilities encompass research, development, and deployment of deep learning models in the field of Surveillance. Additionally, I provide support to the platform team in optimizing model inference, improving processing time, and increasing the number of channels on multi-platform environments.

Projects:

- Vision-Language model for Samsung Logitech washing machine installation (Safety Checks & OCR).
- Fire and smoke synthetic images generation Using Diffusion Models.
- Image-Driven Human Search Model for CCTV Surveillance.

- Fire, smoke, and human actions detection with limited datasets enhanced with contrastive learning.
- Developing cross-platform plugins for NX Witness Video Management System

From October 2021 to June 2022

AI Research Engineer at AIDOT Inc.

Responsibility:

Developing deep learning models (detection, classification, segmentation) for ultrasound Carotid Artery diseases.
Optimizing and Quantization models on tablet devices.

TECHNICAL SKILL

Programming	Python 9/10	C++ 8/10	JavaScript 6/10
AI Tools/ Libraries	Pytorch 8/10	ONNX Runtimes 8/10	HuggingFace 8/10
Others	AWS 7/10	NX Witness 8/10	Docker 7/10

ADDITIONAL PROJECTS

Projects Vision-Language Model for Automated Washing Machine Installation and Safety Validation (2024)

Responsibility:

Developed a Vision-Language model for Samsung Logitech washing machine installation. Handles tasks such as setting safety checks, verifying cable safety, and performing OCR on cable core areas.

Fcg-Former Hugging Face Deployment (2024)

Responsibility:

Deployment of Fcg-Former (Publication paper) on Hugging Face platform for open source contribution in biomedical and chemical research:

<https://huggingface.co/spaces/lycaoduong/FcgFormerApp>

3D Photoacoustic Visualize Software (2021)

Responsibility:

Developing a 3D viewer software for photoacoustic imaging with VTK (Visualization Toolkit) engine can provide a versatile and powerful visualization tool for analyzing photoacoustic imaging data. Creating software that supports various medical data formats including DICOM, NRRD, and TDMS.

HONORS AND AWARDS

Study encouragement scholarship of 131, 141, 151, 172 semester, Ho Chi Minh City University of Technology

Incentive award The 2017 Eureka Student Research Competition with project "Model of colposcopy using polarized light and effective early"