Hoang Tung Lam
AI Researcher/Engineer

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github.com/lamhoangtung

Passionate AI Researcher/Engineer with **more than 3 years** of experience working with **Computer Vision**, **AIOps** and **Performance Optimization**.

WORK EXPERIENCE

Co-Founder & CAIO
Techainer

06/2019 - 04/2022 — *Hanoi, Vietnam*

Achievements/Tasks

- Researched, designed, implemented, and maintained production level Vietnamese OCR System that can handle various types of documents like Identity Card, Banking, and Legal Document, achieved 98% system-wide accuracy on private document dataset.
- Optimized face detection module for production-level Facial Recognition system on NodeJS, achieved 94.04% AP on WiderFace Medium at 319 FPS, almost 4x faster than the original implementation.
- Implemented NodeJS binding for SORT as the face tracking module for production-level Facial Recognition system that can run at almost 1000 FPS.
- Mentor 3 AI Engineer Interns while apply and maintain several internal tools and processes for an AI team of 6.
- Researched, designed, and implemented POC of Visual Search Engine for fashion items.

AI Researcher
Cinnamon AI Labs

12/2018 - 02/2020 — *Hanoi, Vietnam*

Achievements/Tasks

- Improved accuracy of Japanese and English Layout Analysis and OCR module to 98%.
- Developed and maintain a heuristic-based Automated Information Extraction module for document understanding in Flax Scanner for multiple Japanese customers, often achieve 99% of accuracy.
- Research about generate synthesis images of handwritten text for handwriting OCR using CycleGAN, therefore improved it CER by 7%.
- Research about End to end information extraction from documents images based on Instance Segmentation.

AI Engineer Intern
Zinza Technology

07/2018 - 12/2018 — *Hanoi, Vietnam*

Achievements/Tasks

- Implemented, trained, and tuned CRNN models for Vietnamese handwriting OCR, achieved 12% CER.
- Created a pipeline that can generate up to 60 million training images for Handwriting Vietnamese Address OCR models, therefore improved its CER by 20%.

EDUCATION

Bachelor of Computer Science
Hanoi University of Industry

07/2017 - 07/2021

SKILLS

Linux   C/C++   Python   PyTorch

Tensorflow   AWS   GCP   Docker

Kubernetes   TensorRT   TorchScript

Deep Learning   Optimization

PERSONAL PROJECTS

mlchain-python (05/2020 - 08/2021)
- Maintainer and contributor of MLChain: *Auto-Magical Deploy AI model at large scale, high performance, and easy to use.*

torch-js (11/2020 - 12/2020)
- NPM package that helps deploy TorchScript model on NodeJS.

colab_ssh (12/2020)
- A utility to create an SSH tunnel to a running Google Colab notebook.

CRAFT Text Detector for Japanese (10/2019 - 11/2019)
- Re-implementation of CRAFT Text Detection for Japanese Text Detection including training script.

LineHTR (10/2018 - 11/2018)
- Line-level Handwritten Text Recognition with TensorFlow using CRNN+CTC with 84% accuracy on Cinnamon AI Marathon datasets.

ACHIEVEMENTS

AWS Hackdays Online 2020 Vietnam (07/2020)
1st runner-up. Created "Smart Airport Screener System HORUS" using Facial Recognition and OCR to help automate a part of the screening process.

Bedrock Hackathon 1.0: OMG it's OCR! (08/2019)
1st runner-up. Applied OCR and computer vision to build an auto-fill PDF tool for Bedrock. Specifically for Financial Aid Form.

FPT's Driverless Car Challenge (12/2018 - 04/2019)
Top 2 in the elimination round of 2019 FPT's Driverless Car Challenge in Hanoi, defeat 15 others teams in programming a self-driving race car in a simulated environment.

Cinnamon AI Marathon Challenge (10/2018 - 11/2018)
Top 3 on the leaderboard, used Deep Learning System (CRNN + CTC) and self-generated training data to solve Handwriting OCR for Vietnamese Address with 84% characters accuracy.

LANGUAGES

Vietnamese ● ● ● ● ●

English ● ● ● ● ○