

EDUCATION

University of Arkansas

M.S in Computer Science. GPA: 4.0/4.0 (until present)

Arkansas, USA

Jun 2023 - May 2025 (expected)

University of Information Technology

B.S in Computer Science. GPA: 3.4/4.0 (8.1/10.0)

HCMC, Vietnam

Agu 2016 - Nov 2020

EXPERIENCE

AICV Lab

Research assistant

University of Arkansas, USA

Jun 2023 - Present


- Research in 3D Computer Vision: 3D reconstruction, 3D Point Cloud Object Detection and Segmentation, 360 view from multi views

VinAI

Research Engineer

HCMC, Vietnam

Mar 2021 - Jun 2023

- Implemented a 360 surround view monitoring system from four cameras around a car and perspective projection from fisheye image (front/rear/left/right views, wheel views) which deployed success on VinFast E34. Technical based on camera intrinsic, extrinsic calibration, 3D object model, blending image 
- Implemented calibration algorithms: Intrinsic camera, Extrinsic fisheye cameras-vehicle coordinate system(Ego), LiDAR-Camera, auto-calibration
- Implemented algorithms for mapping pixel index between Fisheye ↔ Perspective image. Estimate distance between vehicle coordinate system(Ego) to object based on calibration
- Auto Parking: Support build Occupancy Grid Map (OGM) from four cameras, researched path planning method
- Researched and applied CV, ML/DL techniques to develop 3DOD from LiDAR Point Cloud

AI Research Resident

Apr 2020 - Mar 2021

- Research topic: 3D Point Cloud Segmentation, 3D Medical Image Segmentation
- Proposed a 3D Point Cloud method for 3D voxel medical image segmentation dataset
- Mentors: [Dr. Binh-Son Hua](#)

VCCorp

AI Engineer

HCMC, Vietnam

Jun 2019 - Apr 2020

- Implemented a classification system using RNN/LSTM model that can predict the category, detect depraved content/violence in videos on social media
- Implemented a VIP (very important person) detection system on videos

FPT Software

AI Intern

HCMC, Vietnam

Mar 2017 - May 2018

- Implemented a 3D medical Image Segmentation model, analysis, processing, and visualization of 3D image data
- Implemented a object detection model for broken products when passing on conveyor belts in industrial plants

PUBLICATIONS


Point-Unet: A Context aware Point-based Neural Network for Volumetric Segmentation

MICCAI 2021

Ngoc-Vuong Ho, Tan Nguyen, Gia-Han Diep, Ngan Le, Binh-Son Hua


PROJECTS

Self-driving car

Implemented of mini-self-driving cars, running in real environment Using machine learning to detect lanes, traffic signs, and obstructions, thereby making decisions about speed, and steering angle 


Aug 2017

Document Layout Analysis

Implemented a segmentation model for the layout of the Vietnamese, and English document images (with respect to the magazine). Identify and localize areas of text, tables, charts and images along with their respective descriptions 

Jul 2018

Segmentation of Lungs from Chest X-Ray

Implemented an automatic lung segmentation systems for chest X-ray images. The system helps assess the health status of patients. Achieved an accuracy of over 98% 

Mar 2019

HONORS & AWARDS

Fully Funded 2 years Masters Scholarships at UARK

2023

MICCAI 2021 Student Travel Award 


2021

HackerRank Certificates Problem Solving (Basic) 


2020

Southeast Asia Machine Learning School in Indonesia 


2019

The Mini-course "Statistical learning: bagging, boosting, SVM, introduction to neural network" 

2019

Top 10/176 in the Document Layout Analysis - Cinnamon AI Marathon 

2019

Top 8/876 in the Digital race Driverless in 2017 -2018 by FPT Corporation 

2018

TECHNICAL SKILLS

Programming: C/C++, Python, MATLAB, CUDA(basic), Parallel computing

Frameworks & Tools: Pytorch, TensorFlow, Unix/Linux, OpenCV, OpenGL(Basic), LATEX, Docker, ROS, Blender, Git

Database: SQL, ETL Data Modeling, Kafka