



Luat Gia Khoi Nguyen

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EDUCATION

Bachelor Degree, Computer Science, Ho Chi Minh City University of Technology, Vietnam Aug 2023
Ranking: Excellence - GPA: 9.09/10.

Double Degree Master's in Data Science, Aalto University - University of Twente Aug 2023 - Recent

SKILLS

Programming Languages	Python, C++
Frameworks	PyTorch, Tensorflow, Flask, Django etc.
Libraries	NumPy, Pandas, OpenCV, Pillow, etc.
Cloud	AWS EC2, AWS S3
Others	Docker, RabbitMQ, CI/CD pipeline
Language proficiency	C1 English Level

RECOMMENDATIONS

Assoc. Prof. Quan Thanh Tho Vice Dean of the Faculty of Computer Science and Engineering, HCMUT
Email: qthohcmut.edu.vn

- Dr. Quan Thanh Tho is an Associate Professor in the Faculty of Computer Science and Engineering, at Ho Chi Minh City University of Technology (HCMUT), Vietnam. He graduated with a B.Eng. in information technology from HCMUT in 1998 and a Ph.D. from Nanyang Technological University in Singapore in 2006. His current research interests include formal methods, program analysis/verification, the Semantic Web, machine learning/data mining, and intelligent systems. He currently serves as the Faculty's Vice Dean for Academic Affairs.

Dr. Nguyen Chi Hoang AI R&D Team Leader, FPT Software Da Nang
Email: hoangnc3@fsoft.com.vn

- Dr. Nguyen Chi Hoang is the AI R&D Team Leader at FPT Software Da Nang, Vietnam. Dr. Hoang received a B.Eng. degree in Information Technology at VNU Hanoi-University of Engineering and Technology (VNU Hanoi-UET). He got his Ph.D. degree from Claude Bernard University Lyon 1, France, and completed his "Postdoctoral Researcher" program at French Institute for Research in Computer Science and Automation (INRIA) in 2016. Over the past 9 years, Hoang has been participating in more than 20 projects, providing insightful consultancy for enterprises across sectors and countries on AI adoption strategy. Some of his remarkable works are creating applications to predict the tendency of failure and network utilization for a testbed provider in France and developing software to forecast Nikkei stock prices.

Mr. Vu Hong Chien Director of Quy Nhon AI Research and Application Center (FPT Software Quy Nhon)
Email: chienvh1@fsoft.com.vn

- Mr. Vu Hong Chien, born in 1983, became FPT Under 35 in 2017 when he held the position of Head of FQC Department, Quality Assurance Department of FPT Software. After that, he took on the title of Chief Technology Officer (CTO) of FPT Digital Processing Services Company Limited (FPT DPS) before being appointed Director of Quy Nhon Artificial Intelligence Research and Application Center.

WORK EXPERIENCE

Artificial Intelligence Engineer Nov 2021 - Jun 2023
Quy Nhon AI Research and Application Center (FPT Software Quy Nhon) *Quy Nhon, Vietnam*

- Developing core models for an AI platform, namely akaOCR.
- Collecting and pre-processing training data.
- Integrating deep learning models into outsourcing projects.

Artificial Intelligence Engineer (Apprenticeship) Nov 2020 - Nov 2022
Rever Real Estate Technology Co., Ltd *Ho Chi Minh City, Vietnam*

- Researching and proposing solutions, especially in computer vision.
- Collecting and pre-processing training data.
- Implementing deep learning models.
- Integrating and testing deep learning models.

PROJECTS & PRODUCTS

akaOCR @ Quy Nhon AI (FPT Software Quy Nhon) Nov 2021 - Jun 2023
An Artificial Intelligence (AI) platform for conducting OCR on printed and handwritten documents in multiple languages including English, Vietnamese, Japanese, etc.

- Enhancing the performance of core models in both speed and accuracy. The system achieves a speedup of 300% in response time thanks to Triton model serving implementation.
- Collecting and pre-processing Japanese text data from financial documents to retrain deep learning models.
- Integrating core OCR engine into package solutions such as financial analysis application.

Table Reconstruction @ Quy Nhon AI (FPT Software Quy Nhon) Oct 2022 - Jun 2023
An end-to-end pipeline of deep learning models for detecting, recognizing, reconstructing, and transforming tables in documents into spreadsheets.

- Researching, proposing, and developing an end-to-end pipeline including table detection/recognition and OCR models.
- Achieve substantial model compression ratio (up to 60%) without too much accuracy compromising (2-4.3% drop in AR and AR) thanks to implementation of pruning method for Transformer-based models.
- Collecting, preparing, and documenting data for retraining and testing.
- Developing a RESTful API for table OCR applications.

Financial Statement Analysis @ Quy Nhon AI (FPT Software Quy Nhon) Apr 2022 - Aug 2022
An application that extracts necessary information from financial statements and transforms them into spreadsheets.

- Integrating akaOCR engine, Table reconstruction pipeline, and heuristic techniques into the pipeline.
- Achieve 2% character error rate (CER) in Vietnamese financial statement testing dataset.

Sign Language Translation Application

Sep 2021 - Dec 2022

An application to translate sign language directly to text using mobile devices' cameras

- Researching and developing deep learning models for hand gesture recognition and classification and Transformer-based models for image-to-text translation.
- Designating and coordinating workflow among team members.
- Communicating with other parties for collaboration.

Watermark Removal @ Rever Real Estate Technology Co., Ltd.

Jan 2021 - May 2021

A Deep Learning model to generate watermark-free version of watermarked input images

- Researching and developing generative Autoencoder model to generate watermark-free version of images.
- Augmenting and generating training data for training and evaluation.
- Developing a RESTful API and dockerizing the application.

Contract Auto-filling @ Rever Real Estate Technology Co., Ltd.

Jul 2021 - Mar 2022

A tool to OCR text from contracts and auto-fill provided information into them.

- Researching and proposing an OCR method.
- Developing an algorithm to localize texts and correctly fill provided information into blank fields.

Duplicate Image Detection @ Rever Real Estate Technology Co., Ltd.

Jun 2021 - Jul 2021

A combined machine learning approach to detect duplication of input images with existing images currently in the database

- Researching and proposing machine learning models
- Building, training, and testing K-means algorithm to optimize processing time.

TEACHING & TALKS

Google Developer Student Club - How-to-AI Series

Oct 2022 - Dec 2022

Technical Speaker, Academic Team Leader

- Preparing topics and content for a five-day series about Artificial Intelligence and career path in the field of AI.
- Collaborating with AI Experts to provide a fireside chat with HCMUT students.

Google Developer Student Club - Machine Learning Workshop

Feb 2022 - Mar 2022

Technical Speaker, Academic Team Leader

- Providing basic knowledge of fundamental concepts and some simple algorithms in Machine Learning for students in HCMUT.
- Collaborating with CoderSchool to convey more in-depth knowledge about Deep Learning.

HONORS & AWARDS

Top 2 Computer Science Graduates, 2019-2023, with Highest GPA

Aug 2023

for ranking as one of the top 2 Computer Science students with the highest overall GPA (9.09/10) among the graduating class of 2019-2023.

Student with Excellent Achievements in Scientific Research, Academic Competition, and Arts & Culture 2022

Jan 2023

by winning the Consolation Prize in the competition to design and create technology products for people with disabilities held by the Vietnamese Students' Association in 2022.

Consolation Prize of Designing and Creating Technology Products for People with Disabilities Competition for Vietnamese Sign Language Translating Application project	Jan 2023
Zalo AI Challenge 2022 <i>About Zalo AI Challenge:</i> Zalo AI Challenge is a prestigious annual competition to empower Vietnam AI engineers' capacity and explore AI technologies to impact Vietnamese lives. <ul style="list-style-type: none"> • Researching and proposing solutions. • Augmenting and preprocessing data. • Implementing core AI components. 	Nov 2022
Encouragement Scholarship in the semesters 191, 192, 201, 202, 211, 221 with semester GPAs of 4.0 for all of these semesters	2020-2022
Student with Outstanding Academic Performance in the academic year 2021-2022 with an overall GPA of 4.0	Oct 2022
Top 20 and Consolation Prize in Bach Khoa Innovation 2022 for Vietnamese Sign Language Translating Application project <i>About Bach Khoa Innovation:</i> an annual competition held by Ho Chi Minh City University of Technology to promote entrepreneurship and find innovative solutions from university and high school students.	Aug 2022
SBA Scholarship 2022 for being among 36 students chosen with excellent academic performance, English skills, and growth mindset	May 2022
Advanced Youth of HCMUT following Uncle Ho's words for Excellent Extracurricular Activities and Academic Performance	May 2022
Top 70 of SV STARTUP 2022 for Vietnamese Sign Language Translating Application project <i>About SV STARTUP:</i> an annual nationwide competition encouraging the spirit of entrepreneurship among students held by the Ministry of Education & Training.	Mar 2022
Top 20 of USAID BUILD-IT & Dow Vietnam STEM Program: Engineering Projects in Community Service for Vietnamese Sign Language Translating Application project	Feb 2022
HCMUT Student with 5 Good Merits in the academic years 2019-2020 & 2020-2021 including Good ethics, Good academic performance, Good health, Good volunteering, and Good integration	2020, 2021
OISP Student with 5 Good Merits in the academic years 2021-2022 including Good ethics, Good academic performance, Good health, Good volunteering, and Good integration	Jan 2022
Swing for Dreams Scholarship in the academic year 2021-2022 for being among 3 students chosen with excellent academic performance	Oct 2021
Panasonic Scholarship 2021 for being among 50 students chosen with excellent academic performance after two rounds of interviews	Aug 2021
Student with Outstanding Academic Performance in the academic year 2019-2020 with an overall GPA of 4.0	Oct 2020

Student with Outstanding Activities in Spring Voluntary Campaign 2020 for excellent activities in Spring Voluntary Campaign 2020	Mar 2020
Pre-University Scholarship of Ho Chi Minh Communist Youth Union of the Office for International Study Program, HCMUT for excellent Youth Union's activities	Feb 2020

EXTRACURRICULAR ACTIVITIES

Temasek Foundation Specialist' Community Action and Leadership Exchange (TF-SCALE 2022) at Nanyang Polytechnic Singapore (NYP) Vietnamese Student Ambassador	Sep 2022
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- Being one of 15 chosen students to represent Vietnamese students participating in the program.
- Practicing leadership and teamwork skills with Singaporean students by participating in team projects and outdoor activities.
- Learning Singaporean cultures and the government's master plan.
- Supporting people with disabilities in Bizlink Centre Singapore Ltd.

OISP International Festival at Ho Chi Minh City University of Technology External Relation Organizer	Apr 2020 - May 2020
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- Communicating and connecting with international students at the Ho Chi Minh City University of Technology and student clubs from other universities in Ho Chi Minh City.
- Proposing sponsorship and finding sponsors for the event.