## **Nguyen Nhu Chien**

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#### **ABOUT ME**

A seasoned AI researcher and Data Scientist with a proven track record of success in leading innovative projects and delivering impactful solutions. With over 6 years of experience at esteemed organizations, I have honed my expertise in data processing pipeline design, AI models development, software architecture, and leading teams to achieve excellence in AI projects. My skill set encompasses a wide array of domains, including big data analysis, machine learning, and deep learning model development, along with hands-on experience in system deployment.

#### **EDUCATION**

September 2020 - Present	Master at Soongsil University, South Korea Major :Computer Science GPA: 4.26/4.5
August 2014 - June 2018	Bachelor of Engineering at Hanoi University of Science and Technology Major: Control Automation GPA: 3.07/4

#### **WORK EXPERIENCE**

August 2022 - Present DeltaX

Al Team Leader, Al researcher

#### Main responsibilities:

- Conducted data analysis and developed automated pipelines for processing raw data, enhancing data-driven decision-making processes.
- Developed MLOps pipelines from model training to model evaluation by Prefect framework to boost the productivity of projects
- Developed a deep learning-based object detector for a smart cabin monitoring system which was deployed in a car
- Led the development of an AI-based cyber threat detection systems for the Republic of Korea Army's intranet, focusing on identifying and mitigating high-risk attacks and helping reduce false alarm rate to 2.5%
- Lead the development of an AI-based power forecasting and inverter fault solution for solar energy systems
- Conducted comprehensive code reviews and software architectures designing to ensure adherence to best practices and maintain high-quality codebase.

#### Achievements and skills gained:

- Proficiency in big data analysis, processing, and pipeline design.
- Extensive experience in machine learning and deep learning model development.

- Expertise in deploying deep learning-based systems.

#### September 2020 - August 2022

#### **Smart Network System Laboratory**

Researcher

#### Main responsibilities:

- Researched and developed deep learning-based network intrusion detection systems tailored for cloud and SDN-based systems.
- Researched and implemented deep learning-based automatic resource scaling systems for cloud computing environments.

#### Achievements and skills gained:

- Experience in SDN-based network application development.
- Proficiency in machine learning and deep learning model design and optimization for tabular data classification and time series forecasting.
- Strong skills in data analysis using Apache spark and Pandas.

June 2018 - August 2020

#### **Fpt Software**

C++ Software engineer

#### Main responsibilities:

- Developed and maintained software for embedded systems used in logistics operations.

#### Achievements and skills gained:

- Proficiency in object-oriented programming techniques.
- Experience in designing software programs following Singleton pattern.
- Expertise in multithreading programming techniques.
- Proficiency in unit testing (UT) writing.
- Experience in designing human-machine interfaces for embedded systems using the QT framework.

December 2017 - April 2018

#### Panasonic R&D Center Viet Nam

Internship

#### Main responsibilities:

- Research and develop an ID management application leveraging IoT and Blockchain

#### Achievements and skills gained:

- Blockchain-based applications developing using Hyperledger Fabric framework

#### March 2017 - December 2017

## Viet Nam Academic of Science and Technology Institute

Internship

#### -Main responsibilities:

- Research and develop new control algorithms for 4-wheel omnidirectional robot to do different tasks such as tracking object, moving along trajectory
- Research and develop deep learning-based model for object detection mission of Electro-optical tracking system

#### Achievements and skills gained:

- Proficiency in programming languages including C, C++, and Matlab.
- Experience in embedded C programming for AVR microcontrollers.
- Skills in image processing using the OpenCV library.
- Expertise in designing and optimizing deep learning models for object detection.

#### **PUBLICATIONS**

July 2022

Dynamic Network Slice Scaling Assisted by Attention-Based Prediction in 5G Core Network

January 2022	Optimizing Resource Scaling in Network Slicing
November 2021	Two-phase Deep Learning-Based EDoS Detection System
June 2019	Tracking control for electro-optical system in vibration environment based on self-tuning fuzzy sliding mode control

#### **HONORS & AWARDS**

2022	Paper "Optimizing Resource Scaling in Network Slicing" is awarded as Best Paper Award in International Conference on Information Networking (ICOIN) 2022
2018	Third Prize at Scientific Research Contest for Excellent Students with project "Research and Develop CNNs model for automatic path planning mission of Self- Driving car"
2015, 2017	Scholarship for excellent students of Ha Noi University of Science and Technology in 2015 and 2017.

#### **SKILLS**

Programming Languages	- C/C++, Matlab, Python
Machine Learning Framework	- Tensorflows/Keras, Pytorch, Scikit Learn
Data Analysis Framework	- Pandas, Numpy, Matplotlib
Other	- Apache Spark, SQL, MongoDB, Git, Docker, Prefect, ClearML
Team-Working	- 2-year- experience of working with a 10-member team following SCRUM protocol - Team leader of a 7-member team

#### **FEATURED PROJECTS**

# **Dynamic Network Slice Scaling Assisted by Attention-Based Prediction in 5G Core Network**

(May/2021 - June/2022)

Customer	Korean Ministry of Science and ICT
Description	Designing and developing a deep learning-based automatic resource scaling systems for cloud computing
Team size	3 members
My position	Researcher
My responsibilities	- Researching to design the time series forecasting algorithm - Implementing the algorithm - Writing the paper
Technologies used	Python, Pytorch, Pandas, Scikit-learn

### **Al-based Cyber threats detection system**

(August/2022 - October/2023)

Customer	Republic of Korean Army
Description	Design and develop an Al-based network attack detection for Republic of Korean Army
Team size	7 members
My position	Team leader
My responsibilities	- Data analysis and writing the pipeline to process raw data

	- Deep learning model development - Implementing the inference pipeline - Task allocation and coding review
Technologies used	Python, Pytorch, Apache Spark, Pandas, Scikit-learn, Docker

## Al-based Power forecasting for a solar energy system

(Jun/2023 - December/2023)

Customer	Gaesoft Co., Ltd
Description	Design and develop an AI-based solution to forecast future power generated from a solar energy system and predict faults in inverter stacks of the solar energy system
Team size	6 members
My position	Team leader
My responsibilities	- Model development for the inverter fault detection task - Implement the inference pipeline for inverter fault detection task - Code review and software design for the entire solution including power forecasting and inverter fault detection task
Technologies used	Python, Scikit-learn, Docker, Pandas