

NGUYEN TRAN THANH LAM

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Soft skills: communication, vivaciousness, dynamism, self-motivation, teamwork, time management, willingness to explore new topics, and adapting to new environments.

Hard skills: Access control model, authorization, single sign-on, cryptography, system architecture, DevOps implementation, backend programming, automation system deployment.

Keen on: Security and privacy for IoTs, decentralized architecture, Blockchain, privacy for healthcare and finance systems, security and privacy in distributed systems, and machine learning.

EDUCATION AND TRAINING

2015 – 2018 M.Sc. in Telecommunication Engineering

University of Technology (Vietnam National University – Ho Chi Minh City)

(<https://www.hcmut.edu.vn/en>)

Advisor Dr. Luu Thanh Tra

GPA **3.2/4.0**

Thesis “*Elliptic Curve Cryptography (ECC) algorithm & apply to build Smart - Auto Parking system*”.
Grade 8.2/10 (3.5/4.0)

2010 – 2015 **B.E. in Electronics – Telecommunications (Honor Program)**

University of Technology (Vietnam National University – Ho Chi Minh City)

(<https://www.hcmut.edu.vn/en>)

Supervisor M.Sc. Dinh Quoc Hung

GPA **3.1/4.0**

Thesis “*Build integrated system includes smart parking system and access control system using RFID technology*”. **Grade 9.17/10 (4.0/4.0)**

WORK EXPERIENCE

2023 – now	Ph.D. student at the University of Insubria (Full scholarship grant)
Majoring	Computer Science

01/11/2021-31/12/2022 Department Position Projects	Home Credit Vietnam Open API team Senior DevOps Engineer Open API CI/CD: <ul style="list-style-type: none"> • Building Jenkins server and GitLab for CI/CD pipeline (non-prod and prod environment) • Build Jenkins file, Docker file, and k8S deployment for Open API CI/CI pipeline • Integrated Vault, cert-manager, Splunk-log • Canary deployment pipeline pod-by-pod with Istio service mesh Open API IaC: <ul style="list-style-type: none"> • Coding ansible for installing Kong API cluster and Cassandra cluster • Coding ansible for patching Kong Open API Kong Administrator: <ul style="list-style-type: none"> • Kong cluster management • Kong plugin installing • Kong database and config backup by python Open API Kong Automation GitOps: <ul style="list-style-type: none"> • Building pipeline for automation config Kong (route/service/customer and authentication method)
2018 – 10/2021 Department Position Projects	VNPT Information Technology Company (Vietnam Posts and Telecommunications Group, owned by the Vietnamese Government) R&D Backend developer and DevOps Engineer VNPT One Login (as Project Manager): <ul style="list-style-type: none"> • Research open-source CAS Apereo • Research OAuth protocol • Design system architecture • Programming all backend API for VNPT One Login by Go language • Deploy source code with CI/CD process (Jenkins, Docker, Kubernetes, rancher) VNPT E-conference (as Project Manager): <ul style="list-style-type: none"> • Research open-source BigBlueButton • Deploy the system as an All-in-one architecture • Research splitting all components of open source BigBlueButton as Kurento, Freeswitch, database, etc. VNPT ORIMX, VNPT Open Data, VNPT GIS platform, VNPT Drive, VNPT SMS Brand name (as DevOps engineer) <ul style="list-style-type: none"> • Deploy source code with CI/CD process (Jenkins, Docker, Kubernetes, rancher)
2017 – 2018 Department Position Roles	Tecapro Telecom Company R&D Software Engineer Research Asterisk PBX Develop Asterisk Management Interface (AMI) by PHP language Develop a website for control and monitoring Asterisk PBX
2015 – 2016 Department Position Roles	Saigontourist Cable Television Company R&D Telecommunication Engineer Research and deploy GPON network Research and develop Tizen OS app (cooperate with Samsung) Research and develop Set-top box Research and develop IPTV system Research and develop payment gateway Research and develop Smart Home system (cooperate with Lumi Viet Nam)

PROGRAMING AND SYSTEM SKILLS

Backend: Go, Python, PHP

Database: Mysql/MariaDB, MongoDB, Couchbase, ElasticSearch, etc.

Operating System: Linux

Web Server: Apache/Nginx

DevOps: Git, Jenkins, Docker, Rancher, Kubernetes, Grafana, SonarQube, etc.

Open source: Cas Apereo, BigBlueButton,

IoT: MQTT, gRPC

Message Queue: Kafka

LANGUAGE SKILLS

Vietnamese: Mother tongue

English: IELTS (6.0 overall -2022)

HONOURS AND AWARDS

VNPT Creativity Contest 2020

Topic: “Building a chatbot system for medical consultation” (**the third prize**)

VNPT Creativity Contest 2019

Topic: “Building an online Action Camera system” (**the third prize**)

Topic: “Building smart IPS system for patient monitor” (**the third prize**)

REFERENCES

Professor PhD., Le Tien Thuong

University of Technology (Vietnam National University – Ho Chi Minh City)

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Assoc. Prof. Ha Hoang Kha

University of Technology (Vietnam National University – Ho Chi Minh City)

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Dr. Nguyen Huy Hung

University of Technology (Vietnam National University – Ho Chi Minh City)

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SELECTED PUBLICATION

- Lam Nguyen Tran Thanh et al “BMDD: a novel approach for IoT platform (broker-less and microservice architecture, decentralized identity, and dynamic transmission messages)”, PeerJ Computer Science, (Q1 journal)
- Lam Nguyen Tran Thanh et al “Toward a Unique IoT Network via Single Sign-On Protocol and Message Queue”, CISIM 2021
- Lam Nguyen Tran Thanh et al “Toward a Security IoT Platform with HighRate Transmission and Low Energy Consumption”, ICCSA 2021
- Lam Nguyen Tran Thanh et al “UIP2SOP: A Unique IoT Network Applying Single Sign-On and Message Queue Protocol”, IJACSA 2021
- Lam Nguyen Tran Thanh et al “SIP-MBA: A Secure IoT Platform with Broker-less and Microservice Architecture”, IJACSA 2021
- Lam Nguyen Tran Thanh et al “IoHT-MBA: An Internet of Healthcare Things (IoHT) Platform based on Microservice and Brokerless Architecture”, IJACSA 2021