

# dưới chân tự có đường



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🗨 [nsbvc.blogspot.com](http://nsbvc.blogspot.com)

🐙 [github.com/buivancuong](https://github.com/buivancuong)

### SYSTEMS

- ✓ Ubuntu, CentOS
- ✓ Windows, Windows Server
- ✓ Apache, NginX
- ✓ Docker

Hanoi University of Science and  
Technology  
Information & Technology  
KSTN – CNTT K58  
SEDIC Lab

### SOFTWARE TOOLS

- ✓ Microsoft Office, LaTeX
- ✓ Git
- ✓ VS Code, JetBrains IDE
- ✓ Windows Subsystem for Linux

### SYSTEM ADMINISTRATOR

- ✓ Hardening Systems: Windows  
Server, Linux, Apache
- ✓ IDS/IPS: Snort, Suricata
- ✓ ELK Stack

### RESEARCHING

- ✓ Parallel Computing
- ✓ Interconnection Network
- ✓ DoS/DDoS Attack
- ✓ Cryptography

### SOFTWARE ARCHITECTURE

- ✓ MVC, MVP, MVVP
- ✓ OOP, SOLID, Design Patterns
- ✓ MPI Programming
- ✓ RESTful API
- ✓ API Gateway

### DATABASE

- ✓ Language: SQL, QBE
- ✓ MySQL, MariaDB
- ✓ SQLite, Realm (Android)
- ✓ Elasticsearch

### PAPER

- ✓ An Efficient Compact  
Routing Scheme for  
Interconnection  
Topologies of the  
Random Model - SoICT  
Conference 2017

### PROGRAMMING

- ✓ Android (Java), Java/Scala
- ✓ C/C++ (STL, Boost)
- ✓ UNIX Shell, Python
- ✓ Matlab/Octave, R
- ✓ Assembly

### MACHINE LEARNING

- ✓ Domain: Generative Model (Bayesian Inference, Topic Modeling), Unsupervised Learning, Deep Learning.
- ✓ Tool: Python frameworks (pandas, scikit – learn), Deep Learning frameworks (Tensorflow, Keras), NLP frameworks (nltk, gensim, spacy)

SEDIC Lab: Security	Cục ATTT: Security	CMC InfoSec: Security
<ul style="list-style-type: none"> <li>- Position: Student.</li> <li>- Defend against <b>DDoS attack</b> at <b>Transport Layer - OSI</b> with <b>Bloom filter</b>.</li> <li>- Using <b>Suricata IDS</b> to defend the system.</li> <li>- Studying about general of <b>Cryptography theory</b>.</li> <li>- In this time around, I acquired basic knowledge about Information Security, such as <b>System Admin</b> (Linux, Firewall, IDS/IPS) and <b>Cryptography theory</b> (Math background of Cryptosystems and Key transfer protocols).</li> </ul>	<ul style="list-style-type: none"> <li>- Position: Internship.</li> <li>- Detect and Defend against <b>DDoS attack</b> at <b>Application Layer - OSI</b> with the <b>real-time</b> speed tool that I developed by C++ programming language.</li> <li>- In this time around, I focused on using C++ programming language and the related libraries (<b>STL/Boost</b>) to develop 1 program that handled Web Application Log to detect DDoS attack behavior with real-time speed.</li> </ul>	<ul style="list-style-type: none"> <li>- Position: SOC Forensics.</li> <li>- <b>Hardening</b> the <b>Linux</b> systems (Ubuntu Server, CentOS).</li> <li>- <b>Network Security Monitoring</b> and <b>Incident response</b>.</li> <li>- In this time around, I performed the works related to <b>operational safety</b> in the customer's information system. Specifically, I perform hardening the systems as well as reporting statistics (by day/ week/ month) using <b>automated tools</b> that I programmed myself based on C++ language programming. This greatly reduces the time required for these regular activities.</li> </ul>
SEDIC Lab: Interconnection Network	Umbala Network: Android & Back – end.	CMC InfoSec: Machine Learning on Security
<ul style="list-style-type: none"> <li>- Position: Student.</li> <li>- Scientific Research Article: “<i>An Efficient <b>Compact Routing Scheme</b> for <b>Interconnection Topologies</b> of the <b>Random Model</b> - SoICT Conference 2017</i>”</li> <li>- Graduation Thesis: <i>Develop the <b>Parallel Computing</b> model the <b>Routing Algorithms</b> in <b>Interconnection Network</b></i>.</li> <li>- In this time around, I focused on the simulation of <b>Routing</b> algorithms and <b>Graph</b> properties of the <b>Interconnection Network</b> that are commonly used in <b>Data Centers</b>. Our research team published the paper in that specialized and was accepted in SoICT Conference 2017 (Asia-Pacific caliber). My simulation program was developed end-to-end by myself, based on C++ language programming.</li> </ul>	<ul style="list-style-type: none"> <li>- Position: Android Developer, Backend Developer.</li> <li>- On here, I studied about <b>Software Architecture</b> (MVC, MVP, MVVP), <b>Software Design Patterns</b>, <b>Microservices</b> systems, and applied them to <b>Android App</b> and Authentication policy on Live streaming protocol.</li> <li>- I started blogging from this time. The blog address is <a href="https://nsbvc.blogspot.com">https://nsbvc.blogspot.com</a>.</li> </ul>	<ul style="list-style-type: none"> <li>- Position: R&amp;D Developer.</li> <li>- Study and apply <b>Machine Learning</b> techniques to Information Security system to <b>Anomaly Detection</b>.</li> <li>- In this time around, I have studied and applied Machine Learning techniques to <b>SIEM</b> systems (CMC SOC &amp; CMC WAF), to detect abnormal events. Specifically, within 6 months, I developed and launched 2 automated modules via the <b>Docker</b> platform; successfully integrated into the CMC SOC system. 1 module detects anomalous <b>connection behaviors</b> (DNS, SSL, HTTP) using the <b>Topic Modeling</b> technique in the <b>Generative Model</b>. The other module work for forecasting and detecting anomalies in <b>network traffic</b> by using a combination of <b>Spare Autoencoder</b> architecture and <b>LSTM</b> struct of <b>Recurrent Neural Networks (RNN)</b> in <b>Deep Learning</b>, was computed on GPU.</li> </ul>