# VU Thanh Tung

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# **Experiences**

**Datadog,** Paris 02/2024 - 08/2024

Software Engineer Intern

- Designed and implemented an audit system to monitor changes of metadata.
- Conducted tests to find relevant information for the audit system and verified its validity.
- Processed more than 1 million events a day with a latency under 30s.
- Enabled full-text search of relevant information by leveraging **Datadog logs**.
- Developed a Golang API that supports resetting metadata to any previous state in the past 180 days.
- Instrumented code to monitor applications performance metrics with Datadog.

**Lab FOTON**, Rennes 07/2023 - 09/2023

Research Intern

- Developed a **Qt-based application** for laser control and data analysis, facilitating optimised lab experiments.
- Achieved 10 nanoseconds synchronisation by integrating Python code with FPGA machinery.
- Collaborated with physics researchers in designing the app for their experiments.

**ARMOR Group**, Nantes 06/2022 - 08/2022

DevOps Intern

- Deployed mock servers to run tests on 10 different scheduling solutions, conducted comparative analysis.
- Set up a Rundeck application in the pre-production environment saving the IT team 30 minutes in daily ticket processing.
- Studied and implemented RFC5424 logging convention in enterprise application to facilitate log processing.
- Conducted tests on 5 monitoring tools using Docker, proposed the most functional tool based on comparative study.
- Minimised disk usage on Elasticsearch and Backend server by 90% through log rotation.

#### Education

## Institut national des sciences appliquées de Rennes, Rennes

2019 - 2024

- Major : Computer Science, GPA: 3.5/4
- Exchange study at Korean Advanced Institute of Science and Technology, GPA: 92/100
- Relevant coursework includes **Database, OS, Network, DevOps, DSA, High Performance Computing**, OOP, Design Pattern, Graph Neural Network, AI&ML, Reinforcement learning.

#### **Projects** (\* link to Github repo on project title)

#### **Style Transfer with Graph Neural Network**

- Implemented the code for the paper "Learning Graph Neural Networks for Image Style Transfer" with Pytorch.
- Enhanced the model with pyramid feature extraction.

## Video Processing with 3DCNN and Attention mechanism

- Built a light-weighted 3DCNN + Cross attention aggregation + self-attention model with **Pytorch video** and **Lightning.**
- Conducted ablation studies on different configurations of the model.

#### Stock Trading with Reinforcement learning algorithms

- Built a **Gym** environment for RL trading bots with FinRL.
- Collected stock market data and augmented the data by adding technical indicators.
- Tried different RL algorithms (DDPG, PPO, A2C) on the trading environments and conducted evaluation.
- Tech stack: FinRL, RLlib.

#### **Skills & Certificates**

**Programming Languages:** Python, Go, Java, C++

DevOps: Docker, Linux, Rundeck, ELK stack, Kubernetes, GitLab CI/CD, Ansible

**Database:** Postgres, ElasticSearch, Kafka **Certifications** (\* link to certificate on title)

- Spark and Python for Big Data with PySpark, Udemy
- SQL Advanced, HackerRank
- Deep Learning Specialization (Deeplearning.ai), Coursera
- Machine learning (Stanford), Coursera

### **Accomplishments & Certificates**

Finalist in Cod'INSA: Represented INSA de Rennes in a competitive programming event against other INSA schools.