




# 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 pulse sequences for Rabi and ODMR experiments on NV defects.

### 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, Quantum Information.

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

### Frinine

- A web solution developed with **Angular, MongoDB** and **Firebase** for hosting events and selling tickets online.

### 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.
- 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
- Mécanique quantique (École Polytechnique), Coursera

## Accomplishments & Certificates

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

**Finalist in The Blaise Pascal [Re]generative Quantum Challenge:** Participated in a quantum computing competition, demonstrating skills in quantum information and algorithms.