Qui Loc PHAN

CentraleSupélec & Konatus (l'X) qui-loc.phan@konatus.io locphan2001.github.io Vietnamese

Education

Laboratoire Génie Industriel, CentraleSupélec **2025 – now**
Industrial PhD in Artificial Intelligence for Operations Research *Gif-sur-Yvette, France*

- Thesis Goal: Develop a semi-automated process for multi-project planning in project portfolio management
- Keywords: Scheduling & Resource Allocation, Evolutionary Computation, Machine Learning, Decision under Uncertainty

Université Paris Dauphine & École des Mines de Paris **2023 – 2025**
Master in Computer Science for Decision and Management *Paris, France*

- Awarded Excellence Scholarship from partner institution ENS Paris Saclay and ENS Paris for 2 consecutive years
- Graduated with highest grade in Combinatorial Optimization specialization of the program

Ho Chi Minh University of Education **2019 – 2023**
Honours Bachelor of Mathematics *Ho Chi Minh, Vietnam*

- Graduated with Valedictorian Achievement (rank 1st/150)

Industrial Experience

Konatus, X Novation Center, École Polytechnique **Oct 2025 – now**
PhD Student as Research Engineer (CIFRE Program) *Palaiseau, France*

- Research on resource-constrained scheduling problems in large-scale companies with complex projects and portfolios
- Improve planning tools using evolutionary computation and machine learning to enhance decision-making efficiency
- Strengthen robustness and flexibility of solution by modeling uncertainty, adapting to resource variability and velocity
- Collaborate with academic researchers to keep methods in line with cutting-edge techniques in operations research
- Work hand-in-hand with industry experts to deploy and validate methods on real historical and operational datasets

Corporate Research & Sciences Department, Dassault Systèmes **Mar 2025 – Sep 2025**
Research Engineer Intern *Vélizy-Villacoublay, France*

- Study quantum algorithms for constraint programming: optimization problems with integer and logical constraints
- Develop and implement for practical use cases in long-term, explore near-term challenges, conduct comparative analysis
- Practical case study on Healthcare Staff Scheduling at Paris Hospital with multi-objectives and multi-skills

Academic Experience

Groupe Optimisation et Commande, UMA, ENSTA Paris **May 2024 – Aug 2024**
Graduate Research Intern *Palaiseau, France*

- Study how to optimize resources used in quantum circuit with two objectives: number of gates and depth of circuit
- Understand and construct mathematical programming model and graph optimization model for the problems
- Design heuristics algorithms that produce good solutions and benchmark the results with available open-source libraries

HCMUE & Vietnam Academy of Science and Technology **10 months**
Undergraduate Research Intern *Ho Chi Minh, Vietnam*

- Study fundamental aspects of combinatorics and abstract algebra, model and address combinatorial problems
- Design or develop, and evaluate algebraic algorithms both in theory and practice mathematically

Project

Production Problem **2024**

- Construct mathematical programming model for the resource allocation problem, inspired from the Flowshop Scheduling
- Implement Campbell - Dudek - Smith algorithm, with variant on preprocessing stage and postprocessing stage
- Perform clustering algorithms on preprocessing and local search methods on postprocessing to improve the solution

Quantum Optimization **2023**

- Encode the mathematical programming model of Max-Cut and Maximum Independent Set into quantum computers
- Code end-to-end QAOA algorithms for the problem, test performance with different number of layers and parameters
- Benchmark with evolutionary algorithms on cost function and introduce some heuristic function for better solutions

Technical Skill

Language: Vietnamese (Native), English (C1), French (B1)
Programming Language: Python (3 years), C++ (2 years), Matlab (2 years)

Updated: September 2025