

Fulin YAN

PhD candidate in applied mathematics at Bordeaux mathematics institute.

WORKING EXPERIENCE

Collaboration IMB CATIE, Talence France — *PhD CIFRE contract*

MARCH 2023 TO MARCH 2026

Solving combinatorial optimization problems that can be expressed completely or partially as sequential decision processes by hybrid generic heuristic approach combining machine learning techniques with optimization techniques.

CATIE, Talence France — *research intern*

APRIL 2022 TO SEPTEMBER 2022

Implement a reinforcement learning based algorithm to find heuristic solutions for discrete optimization problems that can be expressed as sequential decision processes.

Keywords: reinforcement learning, graph neural networks, dynamic programming, python

IRMAR-INSA, Rennes France — *research intern*

MAY 2021 TO AUGUST 2021

Implement algorithms in Julia for the kidney exchange program. Use an L-shaped method to solve the two-level stochastic optimization problem whose second-level problem is solved by the column generation method and study the quality of the solution of the stochastic problem.

Keywords: mixed-integer programming, stochastic optimization, Benders decomposition, Dantzig-Wolfe decomposition

SIRADEL, Saint-Grégoire France — *intern*

MAY 2020 TO AUGUST 2020

Optimization of the deployment of base stations for which more flexibility is introduced in the cost/coverage trade-off. Introduce and modify algorithms in a mathematics-oriented optimization library (in C++) developed by Siradel to adapt to multi-objective optimization functionality.

Keywords: Multi-objective optimization, mixed-integer programming

EDUCATION

Rennes 1 University, Rennes France — *Master*

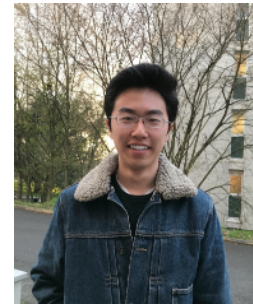
SEPTEMBER 2020 TO NOVEMBER 2022

Master in Scientific Computing and Modeling. High-performance computing.

INSA de Rennes, Rennes France — *Engineer diploma*

SEPTEMBER 2016 TO NOVEMBER 2022

Preparatory cycle + engineering cycle in applied mathematics. Optimization, operational research, statistics, and machine learning.



COORDINATION

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PROGRAMMING SKILLS

C: 18/20

C++: 16/20

Julia: 18/20

Python: 18/20

SQL: 14/20

MPI: 14/20

SOFT SKILLS

Autonomy

Listening skills

Curiosity

LANGUAGE SKILLS

English: B2 (880 Toeic)

French: B2 (81 DELF)

Chinese: native speaker

HOBBIES

Table tennis

Calligraphy