

# ANAS MIFRANI

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*Research interests: Multiple-criteria decision making, Markov decision processes, multiobjective optimization*

## EDUCATION

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### Ph.D. in Applied Mathematics

*Since Oct. 2022*

University of Toulouse, Toulouse, France

Graduation expected 2025

### M.Sc.Eng. in Industrial & Systems Engineering

*Sept. 2019 - Sept. 2022*

Toulouse Graduate School of Chemical, Materials and Industrial Engineering, Toulouse, France

### Classes Préparatoires aux Grandes Ecoles (CPGE)

*Sept. 2017 - Jun. 2019*

*Two-year intensive program for entrance into Moroccan and French engineering schools*

Lycée Moulay Abdellah, Safi, Morocco

Majored in Mathematics & Physics

Ranked 113th nationwide out of 2400 candidates

## PROFESSIONAL EXPERIENCE

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### Teaching Assistant

*Since Oct. 2022*

*College of Science & Engineering, University of Toulouse*

*Toulouse, France*

- Have been teaching undergraduate mathematics to students on a selective pre-medical track, with topics ranging from real analysis and calculus to formal logic and set theory.

### Research Assistant

*Mar. 2022 - Aug. 2022*

*Toulouse Mathematics Institute*

*Toulouse, France*

- Proposed & validated an algorithm for the automatic search, selection and configuration of linear regression models that, given a dataset, achieve satisfactory tradeoffs between conflicting statistical quality requirements.

### Research Assistant

*Apr. 2021 - Aug. 2021*

*Toulouse Mathematics Institute*

*Toulouse, France*

- Improved an existing mathematical model of tumor growth & response to radiotherapy.
- Developed & implemented a decision support tool that recommends individualized radiotherapy fractionation schedules for hypothetical cancer patients. The model was used to simulate a patient's response to treatment, and reinforcement learning was employed to determine an optimal fractionation schedule.

### VBA Developer

*Jun. 2020 - Jul. 2020*

*Sans Cravate*

*Castanet-Tolosan, France*

- Developed a Microsoft Excel-based asset management tool.
- Automated the collection & analysis of live stock market data.

## SKILLS

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### Science & Engineering

#### IT

#### Languages

#### Other

Operations research, multiobjective optimization, machine learning, systems modeling

R, C++, SQL, MATLAB, Octave, Excel VBA

Arabic (native), English (fluent), French (fluent)

Duke University's Data Science Math Skills certificate (July 2020)