

# Hugo Mouton

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🔗 unmoutonperdu.github.io    in hugo-mouton-    📺 UnMoutonPerdu

## Education

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**Polytechnique Montréal**  
*M.Eng. in Computer Science*

*Montréal, QC, CA*  
*Sept 2023 - Now*

- GPA: 3.8/4.0
- Recruited on results through ISAE-SUPAERO
- Double degree with ISAE-Supaero
- **Coursework:** Unsupervised Learning and Time Series, Stochastic Processes, Deep Learning, Machine Learning, Artificial Intelligence: Methods and Algorithms, Natural Language Processing, Graph and flow theory

**ISAE-Supaero**  
*M.Sc. in Aerospace Engineering*

*Toulouse, FR*  
*Sept 2021 - Now*

- GPA: 3.8/4.0
- Recruited through the Mines-Ponts competitive examination
- General engineering cycle, common scientific core in mathematics, physics, flight and materials mechanics
- **Coursework:** Fluid mechanics, Strength of materials, Artificial intelligence, Computer language paradigms, Advanced topics in mathematics

**Lycée Louis Le Grand**  
*Preparatory Class*

*Paris, FR*  
*Sept 2019 - Sept 2021*


- MPSI then PSI\* student
- Admitted to the preparatory class after passing the French science baccalaureate with distinction

## Research Experiences

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**Research Internship**  
*École polytechnique computer laboratory (LIX)*

*Palaiseau, FR*  
*April 2023 - July 2023*

- Verification of neural network-based controllers
- Approximation and compression of ReLU-based neural networks
- Propagation of tropical polyhedra through a neural network
- Implementation of a library for modeling tropical polyhedra and study their propagation ([GitHub repository](#) )

## Professional Experiences

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**Software Development Internship**  
*Boréal SAS*

*Castanet-Tolosan, FR*  
*July 2022 - August 2022*

- Preparation of flight missions
- Drone monitoring during flight
- Development of a flight data analysis tool
- Development of a graphical user interface for presenting results

## Computer center console team leader

ISAE-Supaero

Toulouse, FR  
March 2022 - March 2023

- Service to computer center users
- Management of the console operator team, maintenance and formation
- Supervision of ISAE-SUPAERO's IT equipment in conjunction with teaching staff
- Helping to set up lectures, practical courses and activities linked to the master's program

## Honors and Awards

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- Finalist in the Prologin 2022 competition
- Finalist in the French Robotics Cup with the ISAE-Supaero team in 2022 and 2023
- Recipient of the Fondation Georges Besse Excellence Scholarship since 2021


## Activities

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### ISAE-Supaero Sports Association — Internal Communications Manager

ISAE-Supaero

Toulouse, FR  
February 2022 - February 2023

- Maintaining relations between clubs and the association
- Search for partnerships for sporting events
- Automation of registrations and payments in conjunction with the association
- Website restructuring and maintenance ([AS ISAE-Supaero website](#) )

### President of the robotics club

ISAE-Supaero

Toulouse, FR  
May 2022 - May 2023

- Find partners to finance the club
- Team management
- Formation of new club members in their respective poles

## Skills

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### Languages:

- **French:** Native
- **English:** Fluent - TOEFL: 95/120 (Reading:26, Listening:25, Speaking:20, Writing:24)
- **Spanish:** Academic level

**Programming languages:** Python, C, C++, Java, R, Scala, Prolog, OCaml, Matlab, HTML/CSS/JavaScript, SQL



**Technologies:** Microsoft 365, TIBCO Statistica, LaTeX, Linux

**Engineering Skills:** Problem solving - Machine Learning - Analytical skills - Data science

## Projects

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### Simulation of particle collisions

[GitHub repository](#)   
[Post on my blog](#) 

- Developed basic implementation of a simulation of the movement of particles confined in a box supposing subjected only to elastic collisions
- Two Implementations in C using SDL