Hugo Demaret

Curriculum Vitae

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 HugoDemaret
in hugo-demaret

🎓 Education

2023-2024 **M1 MPRI – Master Foundation of Computer Science**, *École Polytechnique – Institut Polytechnique de Paris*, Palaiseau & Paris, France

2020-2023 **Bachelor of Science, Computer Science**, *Université Paris Cité*, Paris, France, with Highest Honours
Rank : 3/117

2019-2020 **Culinary arts diploma (CAP cuisine)**, *Ecole de Paris des Métiers de la Table (EPMT)*, Paris, France

2017-2018 **Baccalauréat Scientifique (High School diploma)**, *Lycée Eugène Ionesco*, Issy les Moulineaux, France

🔬 Research

October 2023- February 2024 **École Polytechnique research project**, École Polytechnique, Computer Science department, Palaiseau, France
Mentoring: Théo Pierron.
Jury: Luca Castelli Aleardi, Gilles Schaeffer.
Title: *Compact local certification of MSO properties for several tree-like parametres.*

May-July 2023 **Research internship in theoretical computer science**, Université Gustave Eiffel, Laboratoire d'Informatique Gaspard Monge (UMR 8049), Champs-sur-Marne, France
Supervisors: Vincent Jugé, Cyril Nicaud and Pablo Rotondo.
Subject: Theoretical study of the algorithmic complexity of different data structures in different programming languages.
Title: *Theoretical analysis of different data structures in different programming languages.*
See online: 🔗 https://hugodemaret.fr/research

May-August 2022 **Research internship in Artificial Intelligence**, Université Paris Cité, LIPADE, Paris, France
Supervisors : Jérôme Delobelle and Jean-Guy Mailly.
Subject: Complete axiomatic study of incomplete argumentation frameworks
Title: *Principle-based Analysis of Ranking-based Semantics for Incomplete Argumentation Frameworks.*
See online: 🔗 https://hugodemaret.fr/research

🖥 Teaching

2023-2024 **Teaching assistant in Advanced Databases (3rd year of Bachelor's degree)**, Université Paris Cité, Computer Science and Mathematics Department, Paris, France
Course by Ioana Ileana

2022-2023 **Co-coach for the ICPC-SWERC programming contest**, Université Paris Cité, Computer science and mathematics department, Paris, France

2021-2022 **Tutor in mathematics and computer science**, Université Paris Cité, Paris, France

2021-2022 **Speaker**, Université Paris Cité, Computer science and mathematics department, Paris, France,
Speaker at the opening course. Prevention concerning data and online security.
See online: 🔗 `https://defi-lovelace.fr`

🏅 Contests

2021-2022 **ICPC SWERC programming competition**, Université Paris Cité, Paris, France | Politecnico Di Milano, Avril 2022
Member of the team SaintGermainDesPrés with *Mathilde Bonin and Eyal Cohen*

📦 Miscellaneous

2021-2022 **Computer science bachelor degree improving committee member**, Université Paris Cité, Computer science and mathematics department, Paris, France

2021-2023 **Elected to the teaching committee**, Université Paris Cité, Paris, France

2019-2020 **Apprenticeship in culinary arts**, Le Moulin Rouge, Paris, France

</> Projects

2022-2023 **Bot TL;DR**, Université Paris Cité, Paris, France
Development of a discord bot that does NLP (clustering and summarisation of long conversations, mood detection), automatic construction of social graphs based on a probabilistic Page-Rank algorithm.
Supervisors: Ioana Ileana, Benoit Deveaux
See online: 🔗 `https://github.com/HugoDemaret/TLDR-Bot`

2022-2023 **Development of a mini-DBMS**, Université Paris Cité, Paris, France
Advanced databases project (3rd year of bachelor's degree)
Developed in C/C++.

2021-2022 **2nd year project**, Université Paris Cité, Paris, France
Automatic detection and recognition of spatial relations in binary images, using angles histograms.
Supervisor: Laurent Wendling.

📦 Skills

Teaching	Popularisation, Pedagogy, Analytical mind
In-depth knowledge	Graph theory, Abstract Argumentation (à la Dung), Databases, Hash tables
Notions	Computer architecture, image processing, NLP
Linux	System administration, shell, Archlinux, debian

Languages   C/C++, Python, LaTeX, Java, SQL

🚩 Events

November 2023	**Journée Graphes et Algorithmes 2023**, Université Claude Bernard Lyon 1, Lyon, France Participation.
July 2023	**Algo in Programming Languages**, Saint Julien en Born, France, General Meeting Small groups research workshops. Presentation of works in progress.
June 2023	**Combinatorial Pattern Matching 2023**, Université Gustave Eiffel, Champs-sur-Marne, France I helped organising some events, namely the trip to Paris.
June 2023	**Graphs in Paris**, Université Paris Cité, Paris, France Participation.
June 2023	**Algo in Programming Languages**, Institut Henri Poincaré (IHP), Paris, France, Kickoff Meeting Presentation: (Fast ?) Indexed Hashmaps in the Rust programming language.
November 2022	**Journée Graphes et Algorithmes 2022**, École Normale Supérieur, Paris, France Participation.

💬 Languages

French	Mother tongue	
English	Bilingual	*Bilingual school*

🤝 Volunteering

January 2024	**South Western European Regional Contest (SWERC)**, Sorbonne Université, Paris France Volunteer.
2021-2022	**Treasurer, Discovery Vice-President**, MIBDE *Association des étudiants de Mathématiques-Informatique*, Paris, France
2013	**Humanitarian mission**, Kids With A Cause, Rodrigues, Mauritius

💡 Interests

Computer science and Mathematics	Graph theory, Computability, Algorithmic complexity, Probabilistic method
Music	Piano, Bass, Violin
Cooking	French, Italian, Japanese, Moroccan cuisine