

Igor Martayan

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23 years old

PhD student in Computer Science at Univ Lille

Experience

starting October 2023 **PhD in Computer Science, Bonsai team**, Univ. Lille, France
“Locality-preserving representation of k -mer sets”
Supervised by Jean-Stéphane Varré and Camille Marchet

Research internships and projects

Mars-July 2023 **Research intern, Bonsai team**, Univ. Lille, France
Locality-preserving representation of k -mer sets.
Supervisor: Antoine Limasset.

February-June 2022 **Semester research project, Theory group**, EPFL, Switzerland
Forest augmentation problem.
Supervisor: Ola Svensson.

September-December 2021 **Semester research project, WIDE team**, INRIA Rennes, France
Indistinguishability for black-box recommenders outputs.
Supervisors: Erwan Le Merrer, Gilles Trédan.

May-July 2021 **Research intern, GenScale team**, INRIA Rennes, France
Fragmented alignment method for long genomic sequences.
Supervisor: Dominique Lavenier.

Education

2022–2023 **Master's Degree in Computer Science, Parisian Master of Research in Computer Science**, Paris, France

Spring 2022 **Exchange semester, École Polytechnique Fédérale de Lausanne**, Lausanne, Switzerland

2021–2022 **First year of Master in Computer Science, ENS Rennes**, Rennes, France

2020–2021 **Bachelor's Degree in Computer Science, ENS Rennes**, Rennes, France

2017–2020 **MPSI/MP* Preparatory classes, Lycée Thiers**, Marseille, France
Mathematics specialization, computer science option.

2017 **Scientific Baccalaureate, Lycée Thiers**, Marseille, France
Honors: *summa cum laude*, mathematics specialization.

Publications

T. Rouzé, I. Martayan, C. Marchet, and A. Limasset, “Fractional Hitting Sets for Efficient and Lightweight Genomic Data Sketching,” in *23rd International Workshop on Algorithms in Bioinformatics (WABI 2023)*, 2023. doi: 10.4230/LIPIcs.WABI.2023.15.

Preprints

I. Martayan, B. Cazaux, A. Limasset, and C. Marchet, “Conway-Bromage-Lyndon (CBL): an exact, dynamic representation of k -mer sets,” *bioRxiv*, 2024. doi: 10.1101/2024.01.29.577700.

Relevant skills

Imperative Rust, C, C++, Python, Java, JavaScript

Functional OCaml, Scala, Coq, Isabelle/HOL

Other \LaTeX , Bash, Git

Languages

French Native

English Fluent

German Intermediate

Interests

Informatics Bioinformatics, randomized algorithms, graph algorithms, competitive programming.

Personal Aïkido, bass guitar, board games, Japanese culture, science-fiction.