Marcos Tirador Curriculum Vitae

## **CONTACT INFORMATION**

Full name: Marcos Manuel Tirador Del Riego Email address: marcosmath44@gmail.com

Website: marcostirador.github.io

I am currently a senior student of Computer Science at the University of Havana, with an expected graduation date of January 2024. I am also a student research assistant under the mentorship of Dr. Felix Gotti. My main research interest is Algebra. Specially, the last 3 years, I have been investigating the phenomenon of non-unique factorizations in integral domains and finite-rank monoids.

## **EDUCATION**

Degree Rank	September 2019 — January 2024 Bachelor of Science in Computer Science To be awarded University of Havana	Havana, Cuba
Degree	September 2015 — May 2018 High School Diploma Vocational Pre-University Insitute of Exact Scient Havana, Cuba	nces Vladimir I. Lenin

### SCIENTIFIC PUBLICATIONS

(1) On the Set of Molecules of Numerical and Puiseux Monoids (with Marly Gotti)

In: Rings, Monoids and Module Theory, Springer Proceedings in Mathematics & Statistics book series (Eds. A. Badawi and J. Coykendall). Springer, Singapore. Vol. 382 (2022) III–I25, doi:10.1007/978-981-16-8422-7\_5.

- (2) Factorization in additive monoids of evaluation polynomial semirings (with K. Ajran, J. Bringas, Bangzheng Li & E. Singer)
  Communications in Algebra, Vol. 51:10 (2023) 4347-4362, doi:10.1080/00927872.2023.2208672.
- (3) Subatomicity in Rank-2 Lattice Monoids
  (with C. Liu & P. Rodriguez)
  Journal of Commutative Algebra (to appear). Preprint on ArXiv.

#### **AWARDS**

2024	World Finalist at the International Collegiate Programming Contest	
	(ICPC)	
2022	Bronze Medal at the XXV Iberoamerican University Mathematical	
	Olympiad	

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2022	Honorable Mention at the International Mathematics Competition for University Students
2021	Bronze Medal at the International Mathematics Competition for University Students
2021	Gold Medal at the Caribbean Finals of the International Collegiate Programming Contest (ICPC)
2020	Bronze Medal at the Caribbean Finals of the International Collegiate Programming Contest (ICPC)
2018	Bronze Medal at the Iberoamerican Mathematics Olympiad
2017	Honorable Mention at the International Mathematical Olympiad (IMO)
2016	Honorable Mention at the Central American and Caribbean Mathematics Olympiad

# TEACHING EXPERIENCE

Period	February 2022 — Present Day	
Topics	Data Structures and Algorithms	
Position	Student Assistant	
Where	Department of Mathematics and Computer Science	Havana, Cuba
	May 2019 — August 2019	
Topics	Number Theory, Algebra and Combinatorics	
Position	Math Instructor	
Where	Cuban teams training for international competitions	Havana, Cuba

# TECHNICAL SKILLS

*Programming languages:* Python, C#, JavaScript, C, C++, Haskell, Prolog (with a higher level of expertise in the first two).

Others: .NET Core, ASP.NET, Node.js, React, MySQL, Keras, R.