smaaz@uwaterloo.ca Google Scholar +971 (050) 2308-076

**Stephanie Maaz**Efficient Algorithms for Dynamic Environments stephaniemaaz.github.io Abu Dhabi **United Arab Emirates** 

#### **EDUCATION**

Ph.D. in Computer Science, University of Waterloo, Canada	Sept. 2021 — Jul. 2025
<ul> <li>Advisors: Prof. Naomi Nishimura and Prof. Amer E. Mouawad</li> </ul>	
<ul> <li>Thesis: "Developing Algorithms for Token Walking Problems"</li> </ul>	
B.Sc. in Computer Science, American University of Beirut, Lebanon	Jan. 2019 — May 2021
<ul> <li>Graduated with High Distinction, GPA: 4.0/4.0</li> </ul>	•
<b>B.B.A.</b> - with a focus on Finance, <i>American University of Beirut</i> , Lebanon	Sept. 2013 — Dec. 2016

## **SCHOLARSHIPS AND AWARDS**

International Doctoral Student Award, University of Waterloo [60,000 CAD]	2022 - 2025
Mathematics International Master's Award of Excellence, University of Waterloo [7,500 CAD]	2021 - 2022
University of Waterloo Graduate Scholarship, University of Waterloo [4,000 CAD]	2021 - 2022
Henri Qais Naccache Computer Science Student Development Fund,	
American University of Beirut [500 USD]	2020 - 2021
United States AID University Scholar, American University of Beirut [125k+ USD]	2013 - 2016

# CONFERENCE PUBLICATIONS (\*ALPHABETICAL AUTHORSHIP)

[ISAAC'24]*	Mario Grobler, <b>Stephanie Maaz</b> , Amer E. Mouawad, Naomi Nishimura, Vijayaragu-
	nathan Ramamoorthi, and Sebastian Siebertz. Kernelization Complexity of Solution Dis-
	covery Problems, The 35th International Symposium on Algorithms and Computation,
	2024 [pdf]
[ICALP'24]*	Mario Grobler, <b>Stephanie Maaz</b> , Nicole Megow, Amer E. Mouawad, Vijayaragunathan
	Ramamoorthi, Daniel Schmand, and Sebastian Siebertz. Solution Discovery via Recon-
	figuration for Problems in P, The 51st EATCS International Colloquium on Automata,
	Languages, and Programming, 2024 [pdf]
[WALCOM'22]*	Alexandre Cooper, <b>Stephanie Maaz</b> , Amer E. Mouawad, and Naomi Nishimura. <i>Param</i> -
	eterized Complexity of Reconfiguration of Atoms, The 16th International Conference and
	Workshops on Algorithms and Computation, 2022 [pdf]

## **JOURNAL PUBLICATIONS**

[PRA'23]	Remy El Sabeh, Jessica Bohm, Zhiqian Ding, <b>Stephanie Maaz</b> , Naomi Nishimura, Izzat El Hajj, Amer E. Mouawad, and Alexandre Cooper. <i>Efficient Algorithms to Solve Atom Reconfiguration Problems. II. Assignment-Rerouting-Ordering Algorithm</i> , Physical Review A, 2023 [pdf]
[PRA'23]	Barry Cimring, Remy El Sabeh, Marc Bacvanski, <b>Stephanie Maaz</b> , Izzat El Hajj, Naomi Nishimura, Amer E. Mouawad, and Alexandre Cooper. <i>Efficient Algorithms to Solve Atom Reconfiguration Problems. I. Redistribution-Reconfiguration Algorithm</i> , Physical Review A, 2023 [pdf]

## **WORKING PAPERS**

2025\*

Nicolas Bousquet, **Stephanie Maaz**, Amer E. Mouawad, and Naomi Nishimura. *Further* Algorithmic Meta-Theorems for Combinatorial Reconfiguration, 2025

smaaz@uwaterloo.ca Google Scholar +971 (050) 2308-076

stephaniemaaz.github.io Abu Dhabi **United Arab Emirates** 

**Stephanie Maaz**Efficient Algorithms for Dynamic Environments

		_		_	_		_	_
_	v		_		ΙE	NI		_
	^	~	г.	ĸ		ıv		г

Teaching Assistant, University of Waterloo, Canada	Sept. 2021 — Aug. 2024
Courses: CS245 Logic and Computation, CS251 Computer Organization & Design	
Financial Analyst, PFC International, Lebanon	Oct. 2017 — Dec. 2018
Focus: Strategic planning & advisory, investment analysis and market research	
Intern, Business Engineering Experts, Lebanon	May. 2017 — Jun. 2017
Focus: Corporate governance, financial model design and cost of equity estimation	
Intern, Byblos Bank Group, Lebanon	Jun. 2016 — Jul. 2016
Focus: Compliance with key regulatory objectives such as FATCA and confidentiality	

#### **SERVICE**

2023 — 2025	Senator, Graduate Student Representative, University of Waterloo, Canada Gained exposure to university governance, maintained relationships with graduate stu-
2015 2017	dent bodies, and actively participated in Senate meetings.
2015 - 2017	Community Service Organizer, U.S. Agency for International Development, Lebanon
	Worked on a team to secure funding and collaborate with the local communities to open an ancient cultural wilderness trail which entailed mapping the trail, clearing its
	pathways, establishing signage, and documentation through project reports.
2013 - 2017	Community Service Volunteer, CCECS, American University of Beirut, Lebanon
	Led math tutorials for Palestinian refugees preparing for standardized tests (SAT, ACT),
	and tutored over 15 Syrian refugees at the NASMA Learning and Resource Center to
	improve academic and social skills.
2014	Community Service Volunteer, D-RASATI - Education Development Center, Lebanon
	Participated in a nationwide assessment of Lebanese public schools, interviewed prin-
	cipals and evaluated technological readiness to equip computer and science laborato-
	ries in over 300 schools.

## **ACADEMIC SERVICE**

**Sub Reviewer** | Workshop on Graph-Theoretic Concepts in Computer Science [WG'23]

# **INVITED TALKS**

Nov. 2024	Kernelization Complexity of Solution Discovery Problems,
	Mohamed bin Zayed University of AI (MBZUAI), Abu Dhabi, UAE.
Jan. 2024	Parametrized Complexity of Reconfiguration of Atoms,
	1st Villeurbanne Reconfiguration Worshop (VRW'24), Lyon, France.
May 2022	Parametrized Complexity of Reconfiguration of Atoms,
-	Banff International Research Station (BIRS'22), Banff, Canada. [talk]