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Stephanie Maaz
Efficient Algorithms for Dynamic Environments

EDUCATION

Ph.D. in Computer Science, *University of Waterloo*, Canada — Sept. 2021 — Jul. 2025
- Advisors: *Prof. Naomi Nishimura* and *Prof. Amer E. Mouawad*
- Thesis: "*Developing Algorithms for Token Walking Problems*"

B.Sc. in Computer Science, *American University of Beirut*, Lebanon — Jan. 2019 — May 2021
- Graduated with High Distinction, GPA: 4.0/4.0

B.B.A. - with a focus on Finance, *American University of Beirut*, 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, **Stephanie Maaz**, Amer E. Mouawad, Naomi Nishimura, Vijayaragunathan Ramamoorthi, and Sebastian Siebertz. *Kernelization Complexity of Solution Discovery Problems*, The 35th International Symposium on Algorithms and Computation, 2024 [pdf]
[ICALP'24]*	Mario Grobler, **Stephanie Maaz**, Nicole Megow, Amer E. Mouawad, Vijayaragunathan Ramamoorthi, Daniel Schmand, and Sebastian Siebertz. *Solution Discovery via Reconfiguration for Problems in P*, The 51st EATCS International Colloquium on Automata, Languages, and Programming, 2024 [pdf]
[WALCOM'22]*	Alexandre Cooper, **Stephanie Maaz**, Amer E. Mouawad, and Naomi Nishimura. *Parameterized 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, **Stephanie Maaz**, Naomi Nishimura, Izzat El Hajj, Amer E. Mouawad, and Alexandre Cooper. *Efficient Algorithms to Solve Atom Reconfiguration Problems. II. Assignment-Rerouting-Ordering Algorithm*, Physical Review A, 2023 [pdf]
[PRA'23]	Barry Cimring, Remy El Sabeh, Marc Bacvanski, **Stephanie Maaz**, Izzat El Hajj, Naomi Nishimura, Amer E. Mouawad, and Alexandre Cooper. *Efficient Algorithms to Solve Atom Reconfiguration Problems. I. Redistribution-Reconfiguration Algorithm*, 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
2025*	**Stephanie Maaz**, Diptapriyo Majumdar, Amer Mouawad, Vijay Ramamoorthi, and Sebastian Siebertz. *Feedback Vertex Set Discovery*, 2025

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EXPERIENCE

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 student 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 principals and evaluated technological readiness to equip computer and science laboratories in over 300 schools.

ACADEMIC SERVICE

Sub Reviewer	Workshop on Graph-Theoretic Concepts in Computer Science [WG'23]
Reviewer	International Colloquium on Automata, Languages, and Programming [ICALP'25]

CONTRIBUTED 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]