

MARWAN JALALEDDINE

Doctoral Candidate in Electrical Engineering at McGill University

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🇱🇧 Lebanese (Arab) ♂ Male (He/Him)

EDUCATION

PhD in Electrical Engineering

📅 2021 – Ongoing

Supervisor: Professor Warren Gross

McGill University

📍 Montreal, Canada

Master's in Electrical Engineering

📅 2019 – 2021

Supervisor: Professor Warren Gross - Grade A

McGill University

📍 Montreal, Canada

Bachelor's in Electrical and Computer Engineering

📅 2015 - 2019

High Distinction Grade - 91.5/100

American University of Beirut

📍 Beirut, Lebanon

EXPERIENCE

Teaching Assistant

📅 January – Present

- Lead the lab and tutorial sessions for Computer Organization, Digital Systems and Digital Logic courses at McGill University.

McGill University

📍 Montreal, Canada

Web & Game Development

📅 June – August 2018

- Developed interactive educational tools capable of interfacing with the Arduino microcontroller using the Phaser3 HTML5 game platform.

Cherpa.io

📍 Beirut, Lebanon

Electronics Instructor

📅 June – August 2018

- Taught core electronics and coding concepts to young adults.

TeensWhoCode

📍 Beirut, Lebanon

PUBLICATIONS

📄 Journal Articles

- Syed Mohsin Abbas, Marwan Jaleddine, and Warren J. Gross (2022b). "Hardware Architecture for Guessing Random Additive Noise Decoding Markov Order (GRAND-MO)". in: *Journal of Signal Processing Systems*. ISSN: 1939-8115. DOI: [10.1007/s11265-022-01775-2](https://doi.org/10.1007/s11265-022-01775-2).
- Syed Mohsin Abbas, Thibaud Tonnellier, Furkan Ercan, Marwan Jaleddine, and Warren J. Gross (2022). "High-Throughput and Energy-Efficient VLSI Architecture for Ordered Reliability Bits GRAND". in: *IEEE Transactions on Very Large Scale Integration (VLSI) Systems* 30, pp. 681–693. ISSN: 1557-9999. DOI: [10.1109/TVLSI.2022.3153605](https://doi.org/10.1109/TVLSI.2022.3153605).

👥 Conference Proceedings

- Syed Mohsin Abbas, Marwan Jaleddine, and Warren J. Gross (2022a). "GRAND for Rayleigh Fading Channels". In: Accepted to IEEE GLOBECOM 2022. DOI: [10.48550/arxiv.2205.00030](https://doi.org/10.48550/arxiv.2205.00030).
- – (2021a). "High-Throughput VLSI Architecture for GRAND Markov Order". In: *2021 IEEE Workshop on Signal Processing Systems (SiPS)*. ISBN: 2374-7390. DOI: [10.1109/SiPS52927.2021.00036](https://doi.org/10.1109/SiPS52927.2021.00036).
- Syed Mohsin Abbas, Thibaud Tonnellier, Furkan Ercan, Marwan Jaleddine, and Warren J. Gross (2021). "High-Throughput VLSI Architecture for Soft-Decision Decoding with ORBGRAND". in: *ICASSP*, pp. 8288–8292. DOI: [10.1109/icassp39728.2021.9414908](https://doi.org/10.1109/icassp39728.2021.9414908).

● Other works

- Syed Mohsin Abbas, Marwan Jaleddine, and Warren J. Gross (2021b). *List-GRAND: A practical way to achieve Maximum Likelihood Decoding*. DOI: [10.48550/ARXIV.2109.12225](https://doi.org/10.48550/ARXIV.2109.12225).