

# Nicholas Mc-Donnell

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Born: Januray 9, 1999 — Santiago, Chile

Nationality: Chilean

## Education

2017-2020 BSc in Mathematics, Pontificia Universidad Católica de Chile

## Additional Math Experience

2018-2020 Organizer of Undergraduate Seminar at UC

2018-Present Organizer of Model Theory Seminar at UC

2020 Undergraduate Research Experience under Marcelo Arenas

- Weisfeiler-Lehman Test, Pebble Games &  $\mathcal{C}_k$
- Graph Neural Networks and it's logical expressiveness power

2020-Present Research Assistant at IMFD<sup>1</sup> under Marcelo Arenas

- Improving Shapley Value Algorithm over Deterministic Decomposable Circuit
- Implementation of said Algorithm
- Running experiments of said Algorithm performance

## Teaching Assistantship

2018-2020 Freshman Math Workshop Assistant, UC

2018 Calculus I, UC

2019 Calculus II, Ring Theory & Group Theory, UC

2020 Pre-calculus & Real Analysis, UC

2021 Cryptography, Data Structures & Design and Analysis of Algorithms, UC

## Other

2017-2020 Representative of UC at ICPC Regional Competition

2020 Part of the official UC Competitive Programming team

2020 Part of the Mathematics Student Council

Last updated: August 8, 2022 • [n9199.github.io/academic-cv.pdf](https://n9199.github.io/academic-cv.pdf)

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<sup>1</sup>Millenium Institute for Foundational Research on Data