

# Daniel Carranza

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## Curriculum Vitae

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### Education

- Fall 2023 **Ph.D.**, Johns Hopkins University  
Mathematics
- 2022-2023 **Program Associate**, MSRI
- 2021-2022 **M.Sc.**, University of Toronto  
Mathematics
- 2017-2021 **B.Sc.**, Western University  
Honour's Specialization in Mathematics; minor in Computer Science.

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### Research

#### Papers

- February 2021 **Cubical setting for discrete homotopy theory, revisited**, Preprint  
With C. Kapulkin  
<https://arxiv.org/abs/2202.03516>
- February 2021 **Homotopy groups of cubical sets**, Preprint  
With C. Kapulkin  
<https://arxiv.org/abs/2202.03511>
- January 2021 **2-adjoint equivalences in homotopy type theory**, *Logical Methods in Computer Science*  
With J. Chang, C. Kapulkin, and R. Sandford  
<https://arxiv.org/abs/2008.12433>  
<https://lmcs.episciences.org/7124>

#### Talks

- August 2020 **Formal Verification of Mathematics**, *CUMC 2020*, Western University  
<https://youtu.be/LCW682zcEVs>
- August 2020 **Formalizing 2-Adjoint Equivalences in Homotopy Type Theory**,  
*Western Homotopy Theory Seminar*, Western University  
[https://youtu.be/BIqhGYoo\\_PU](https://youtu.be/BIqhGYoo_PU)

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## Scholarships and Awards

- Summer 2021 **NSERC Undergraduate Student Research Award**, *Cubical Methods in Discrete Homotopy Theory*, Western University
- Summer 2020 **NSERC Undergraduate Student Research Award**, *2-Adjoint Equivalences in HoTT*, Western University
- 2018-2021 **Dean's Honor List**
- September 2017 **Western Scholarship of Excellence**

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## Teaching Experience

### Teaching Assistant

- Winter 2022 **Math Learning Centre**, University of Toronto
- Winter 2022 **Engineering Calculus 2**, University of Toronto
- Fall 2021 **Engineering Linear Algebra**, University of Toronto

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## Other Activities

- February 2020 **Higher Categories and Categorification**, *Research Visit*, MSRI
- October 2019 **Midwest Homotopy Type Theory Seminar**, *Conference*, University of Michigan