

# Daniel Carranza

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## *Curriculum Vitae*

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### Education

- 2017–Present **B. Sc. (Hons.)**, Western University, *GPA: 87*.  
Double Major: Mathematics and Computer Science.  
Expected Spring 2021.
- 2013–2017 **OSSD**, Saunders Secondary School, *GPA: 94*.  
Ontario Secondary School.

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### Research Experience

#### Paper

#### **2-adjoint equivalences in homotopy type theory.**

With J. Chang, C. Kapulkin, and R. Sandford, submitted.

#### Talks

- August 2020 **Formal Verification of Mathematics.**, *CUMC 2020*, Western University.
- August 2020 **Formalizing 2-Adjoint Equivalences in Homotopy Type Theory**,  
*Western Homotopy Theory Seminar*, Western University.

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### Scholarships and Awards

- Summer 2020 **NSERC Undergraduate Student Research Award**, Western University.
- 2018-2020 **Dean's Honor List**.
- September 2017 **Western Scholarship of Excellence**.

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### Extra-curricular Activities

- February 2020 **Higher Categories and Categorification**, *Research Visit*, MSRI Berkeley.
- Fall 2019 **Category Theory**, *Reading Project*, Western University.  
Studied a selection of topics from Awodey, *Category Theory*. Supervised by C. Kapulkin.
- October 2019 **Midwest Homotopy Type Theory Seminar**, University of Michigan.

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## Programming Languages

### **Lean Theorem Prover.**

Proof assistant and formal verification language. 1 year of experience.

### **LaTeX.**

Popular typesetting language. 3.5 years of experience.

### **C++.**

Object-oriented general-purpose language. 4 years of experience.

### **Python.**

Interpreted general-purpose language. 2 years of experience.

### **Java.**

Object-oriented general-purpose language. 3 years of experience.

## Relevant Course Work

Course			Percentage
CALCULUS	1500	Calculus I for Math Sciences	085
CALCULUS	1501	Calculus II	084
MATH	1120	Fundamental Concepts in Math	097
CALCULUS	2502	Advanced Calculus I	089
MATH	2120	Intermediate Linear Algebra	091
MATH	2122	Real Analysis I	091
MATH	2155	Mathematical Structures	091
MATH	3020	Introduction to Abstract Algebra	094
CALCULUS	2503	Advanced Calculus II	085
MATH	3120	Group Theory	095
MATH	3121	Advanced Linear Algebra	091
MATH	3152	Combinatorial Math	094

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