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Juan Carlos Ortiz

Education

Fall 2019 - Present **Stanford University**, *PhD in Mathematics*, Stanford, CA.
Expected Completion Date: 2024. I passed my qualifying exams in April 2020.
Area of Research: Theoretical Computer Science

Selected CS Courses.
Machine Learning (CS 229), Artificial Intelligence (CS 221), The Modern Algorithmic Toolbox (CS 168), Data Structures (CS 166).

Selected Math Courses.
Algebraic Geometry 1 and 2 (MATH 216A and B), Symplectic Topology (MATH 257A), Real Analysis 1 and 2 (MATH 205A and B).

Fall 2015 - Spring 2019 **Massachusetts Institute of Technology**, *Bachelor of Science in Mathematics*, Cambridge, MA.
GPA: *4.8/5.0*. Graduation Date: June 2019.

Selected CS Courses.
Theory of Computation (6.840).

Selected Math Courses.
Theory of Probability (18.175), Graduate Topology Seminar (18.919), Riemann Surfaces (18.116).

Selected Honors

Summer 2015 **International Mathematics Olympiad (IMO)**, *Chiang Mai*, Thailand.
2015 - Gold Medal. Third ever Mexican participant to achieve this recognition.

Work Experience

Summer 2021 **Jane Street - Quantitative Trading Intern**, *New York City*, NY.
Quantitative trading summer intern at Jane Street Capital.

Fall 2019-Present **Teaching Assistant**, *Stanford*, CA.
- Teaching Assistant for Linear Algebra and Multi-Variable Calculus (MATH 51, Winter 2021).
- Course Assistant for Applied Number Theory (MATH 110, Spring 2020).
- Course Assistant for Fundamental Concepts of Analysis (Math 171, Spring 2021).

Skills

Software Python, C++
Languages Spanish: Native. English: Native level. German: Beginner.
Other LaTeX

Mathematics Research

Fall 2018 **UROP program at MIT**, *Cambridge*, MA.
Mentor: *Dr. Matthew Stoffregen.*
- Conducted research on the Heegaard-Floer and Lagrangian-Floer homology theories, and their applications to the study of the infinite cobordism group.

Summer 2018 **UROP+ program at MIT**, *Cambridge*, MA.
Mentors: *Piotr Suwara, Dr. Matthew Stoffregen.*
- Conducted research on the Steenrod Square on Khovanov-like knot homologies. The final paper can be found at: `https://math.mit.edu/research/undergraduate/urop-plus/documents/2018/Ortiz.pdf`.

Summer 2017 **SPUR program at MIT**, *Cambridge*, MA.
Mentor: *Jackson Hance.*
- Conducted research in algebraic topology and geometric topology. The final paper can be found at: `https://math.mit.edu/research/undergraduate/spur/documents/2017Ortiz.pdf`.

Summer 2016 **REU program at Williams College**, *Williamstown*, MA.
Mentor: *Prof. Cesar Silva.* **Collaborators**: *Madeleine Elyze, Alexander Kastner, Vadim Semenov.*
- Conducted research on Ergodic multiplier problems. The final paper can be found at: `https://arxiv.org/pdf/1610.01438.pdf`.