

# DIEGO ROQUE

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## EDUCATION

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**Massachusetts Institute of Technology** Cambridge, MA  
*Bachelor of Science in Mathematics*  
Technical courses: Formal Reasoning about Programs, Theory of Probability, Topology, Measure Theory, Algebra I/II, Analysis, Deep Learning, Graph Theory and Additive Combinatorics, Social Choice and Networks, Algorithmist's Toolkit, Categorical Logic, Non-credit Category Theory and Topoi Reading Program

## AWARDS

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**International Mathematical Olympiad (IMO)** 2010 — 2014

- Historically best ranked Mexican competitor
- **Gold** Medal, 3 Silver Medals, Bronze Medal
- Seven times National Gold medalist

**International Olympiad in Informatics (IOI)** 2013 — 2014

- Historically best ranked Mexican competitor
- **Gold** Medal, Silver Medal
- Three times National Gold medalist

## EXPERIENCE

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**Bridgewater Associates** Westport, Connecticut  
*Investment Associate Intern* Summer 2018

**Tudor Investment Corporation** New York, New York  
*Quant Intern* Summer 2017

- Researched machine learning algorithms on financial databases in order to predict asset returns, which were integrated into the overall trading strategy.

**Poggio Lab at Center for Brains Minds and Machines** Cambridge, MA  
*Undergraduate Researcher* February 2018 — Present

- Developing an Artificial Intelligence system capable of doing mathematics.

**MIT Programming Languages and Verification Group** Cambridge, MA  
*Undergraduate Researcher* September 2017 — Present

- Developing automatically generated verified solvers for mathematical optimization problems.

**Kueski** Guadalajara, Mexico  
*Software Engineer* 2015 — 2015

- Worked in the backend of Kueski, an online lending startup

**Centre for High Academic Achievement** Monterrey, Mexico  
*Software Engineer Volunteer* 2015 — 2016

- Developed an admission system (written in Purescript and Haskell) with statistical methods to evaluate student performance, such as IRT.

**Mexican Computing Olympiad Committee** Mexico  
*Problem Setter and Training Program Organizer* 2015 — 2016

- Wrote part of the tests used to select the Mexican team for the IOI 2015 and 2016, as well as helping with the organization of the selection process.

**MIT Nuclear Science and Engineering Department** Cambridge, MA  
*Undergraduate Researcher* Fall 2014

**IQ+** Monterrey, Mexico  
*Board Member* 2016 — Present

- IQ+ is an educational nonprofit specialized on gifted youth.

**Tutor** 2014 — 2016

- Tutored three students that went to international olympiads. One student got a bronze at IOI, and the other two got silver at IMO.

## SKILLS

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Programming Languages: Haskell, Coq, Purescript, Elm, C/C++, Python, Ruby, Javascript, Julia  
Languages: Spanish (Native), English (Full Professional), Chinese (Beginner)