

# 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, Topology, Measure Theory, Algebra I/II, Analysis, Deep Learning, Graph Theory and Additive Combinatorics, Social Choice and Networks, Algorithmist's Toolkit, Categorical Logic, 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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### Applied Category Theory, Adjoint School

Oxford, England

*Participant*

February - July 2019

- Participating on the Adjoint School of ACT 2019, studying categorical settings for computation with Pieter Hofstra.

### EngineML

San Francisco, California

*Software Engineer*

Fall 2018

- Implemented features in a Haskell codebase, using Servant, Persistent, and language extensions.

### Bridgewater Associates

Westport, Connecticut

*Investment Associate Intern*

Summer 2018

- Investment Associate in Disruption Lab.

### 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

- Implementing concurrent semantics for RISC-V in Haskell.

### 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. Used to screen more than 3000 students.

### 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.

### 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)