

# POL GÓMEZ RIQUELME

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## EDUCATION

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### The University of Chicago

B.A. in Mathematics and Computer Science

· Odyssey Scholarship recipient, Dean's List 2016-17 & 2017-18

*Expected, June 2020*

GPA: 3.63

## EXPERIENCE

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### Mathematics REU at The University of Chicago

*Research student*

Chicago, IL

June 2018 - August 2018

- Wrote a graduate-level introduction to the field of algebraic number theory
- Worked alongside mentor through various advanced texts on related subjects

### Universitat Autònoma de Barcelona

*Research student*

Bellaterra, Spain

June 2017 - September 2017

- Wrote an introductory survey on the essential concepts of category theory and its applications
- Worked alongside prof. Joachim Kock on *polynomial functors*, a novel area of research tying together abstract data types and combinatorics

### Leading Program Barcelona (CaixaBank)

*Participant*

Barcelona, Spain

July 2016

- Entrepreneurship fostering program awarded to top 20 students on the basis of university entrance exam results
- Met with representatives of local and international companies, learned about common start-up issues

### Institut de Ciències Fotòniques (ICFO)

*Intern*

Castelldefels, Spain

July 2016

- Learned the theoretical construction of image compression algorithms
- Implemented JPEG compression and decompression with MATLAB and C++ under the supervision of Prof. Darrick Chang

### Research Science Institute (RSI)

*Research student*

Boston, MA

July 2015

- Wrote technical paper on novel combinatorics research at MIT Mathematics Department
- Presented paper contents in a final conference
- Used SageMath (Python) and C++ to process bulk data and test mathematical conjectures

### Astronomy research project

*Co-author*

Remote

August 2014 - January 2015

- Developed a project on Near-Earth asteroid detection under the guidance of Dr. Miquel Serra-Ricart
- Learned to use astronomical observation software, used Python for data processing and statistics

### Joves i Ciència program (Catalunya-La Pedrera foundation)

*Participant*

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2013-2016

- Participated in national three-year science program to empower young students interested in science and engineering research

## SKILLS

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### Programming Languages

C/C++, Python, Rust, Javascript (Node, &c.), SQL, L<sup>A</sup>T<sub>E</sub>X

### Software & Tools

GNU/Linux (bash &c.), Visual Studio, git

### Languages

Native Spanish and Catalan, Proficient English, Basic French and Russian

## ACADEMIC ACHIEVEMENTS & AWARDS

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Received national distinction for achieving the 7th highest mark in University entrance exams

Awarded national prize for project on artificial intelligence developed during the 2014-15 school year