

POL GÓMEZ RIQUELME

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EDUCATION

The University of Chicago

September 2016 - 2020

Prospective B.A. in Mathematics and Computer Science

GPA: 3.63

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

EXPERIENCE

The University of Chicago

Chicago, IL

Mathematics REU Program, research student

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

Bellaterra, Spain

Mathematics research student

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

Barcelona, Spain

Participant

July 2016

- Entrepreneurship fostering program funded by *CaixaBank* awarded to top 20 students on the basis of university entrance exam results.
- Met with representatives of leading companies in different fields on project and business leading.

Institut de Ciències Fotòniques (ICFO)

Castelldefels, Spain

Intern

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)

Boston, MA

Research student

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

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, data processing and statistics in Python.

Joves i Ciència program

Participant

2013-2016

- (Fundació Catalunya-La Pedrera)
- National three-year science program to empower young students interested in science and engineering research.

SKILLS

Programming Languages

C/C++, Python, Rust, Javascript (Node, &c.), SQL, L^AT_EX

Software & Tools

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

Languages

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

ACADEMIC ACHIEVEMENTS & AWARDS

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

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