# ALBANI CRISTINA OLIVIERI REYES

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San Diego, CA.

## EDUCATION:

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|---|---|
| **University of California, San Diego** | San Diego, CA |
| PhD in Aerospace Engineering | 2024 - Present |
| **Universidad de Chile, Faculty of Physical and Mathematical Sciences** | Santiago, Chile |
| MSc in Computer Science | 2023 - 2024 |
| Computer Science Engineering | 2018 - 2024 |

## WORK AND RESEARCH EXPERIENCE:

**Kramer Research Group (Mechanical and Aerospace Engineering department at UCSD)** — San Diego, CA

Graduate researcher — September 2024 - Present

Advisor: Boris Kramer

> Conducting research on algorithmic solutions for performing variable transformations on PDE models for the application of model order reduction techniques.

**Universidad de Chile, Faculty of Physical and Mathematical Sciences** — Santiago, Chile

Master's Thesis Research — September 2023 - September 2024

Advisors: Gonzalo Navarro and Gleb Pogudin

> The thesis subject is the PDEs optimal quadratization problem, where the goal is to keep working on the implemented algorithm through modifications, extensions, and new functionalities to get better results in practical examples.

**University of California, San Diego** — San Diego, CA

Research Intern — February - May 2024

Advisor: Boris Kramer

> Responsible for researching and implementing computational algorithmic solutions for quadratizations/lifting procedures used in the model order reduction field for PDE models.

**École Polytechnique** — Palaiseau, France

Research Intern — September 2022 – January 2023

Advisor: Gleb Pogudin

> Responsible for carrying out a research project to design and implement an algorithm for quadratizing systems of Partial

Differential Equations (PDEs) through symbolic calculus and
algebraic methods.

**IBM Chile**                                              Santiago, Chile
Software Consulting Intern                            January - July 2022
  Responsible for identifying software requirements and analyzing
  its performance data as part of a project that aimed to develop a
  web application and software tools within the boundaries of a
  digital transformation.

**Entel Chile**                                            Santiago, Chile
Product and Service Quality Analyst               April 2021 - April 2022
  Responsible for testing products and mobile network services
  offered by the company. The main aspects tested were proper
  service performance and product functionalities.

**Entel Chile**                                            Santiago, Chile
Software Engineering Intern                       January - March 2021
  Successfully designed and implemented an algorithm to deliver
  relevant information about mobile services by processing a
  database using SQL queries, Python, and Pandas library.

## TEACHING ASSISTANT:

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| Linear Systems Theory | University of California San Diego, 2025 |
| Algorithms and Data Structures | University of Chile, 2023 |
| Introduction to Programming | University of Chile, 2021 |
| Computing Tools for Engineering and Sciences | University of Chile, 2021 |

## VOLUNTEERING:

**Volunteer at Jacobs & Cushman San Diego Food Bank**          San Diego, CA
Cleaning, inspecting, sorting, packing, and labeling food products, and assembling      July 2025 - Present
food boxes for the food bank's food programs.
**Volunteer at NiñasPRO Corporation**                          Santiago, Chile
Member of the workshop and teaching committee: Responsible for organizing      February 2021 - July 2022
introductory programming workshops for girls.

## ACHIEVEMENTS:

**Outstanding Student**, Faculty of Physical and Mathematical Sciences, Universidad de Chile      2019 - 2020 - 2021
**Competitor in National Chemistry Olympics**, AVOQUIM                2014

## LANGUAGES:

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|---|---|
| Spanish | Native |
| English | C2 (112 points), Toefl iBT (2023) |
| French | B2, not certified |