



# Rodrigo Andre Zelada Mancini

Mathematical Engineer,  
M. Sc. Eng. in Applied Mathematics.

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## Social Network —

- [linkedin.com/in/rodrigo-andre-zelada-mancini-b15553184/](https://www.linkedin.com/in/rodrigo-andre-zelada-mancini-b15553184/)
- [github.com/RodrigoZelada](https://github.com/RodrigoZelada)

## Skills —

- Enthusiast
- Persistent
- Work to achieve goals.

## Referees —

- Professor PhD. Carlos Conca  
Mail: [cconca@dim.uchile.cl](mailto:cconca@dim.uchile.cl)  
Phone: +56 2 2978 4459
- Professor PhD. Jorge San Martín  
Mail: [jorge@dim.uchile.cl](mailto:jorge@dim.uchile.cl)  
Phone: +56 2 2978 4473
- Professor PhD. Juan Peypouquet  
Mail: [jpeypou@dim.uchile.cl](mailto:jpeypou@dim.uchile.cl)  
Phone: +56 2 2978 0952
- Professor PhD. Daniel Quiroz  
Mail: [dquiroz@dim.uchile.cl](mailto:dquiroz@dim.uchile.cl)  
Phone: +56 2 2977 7541

## Education

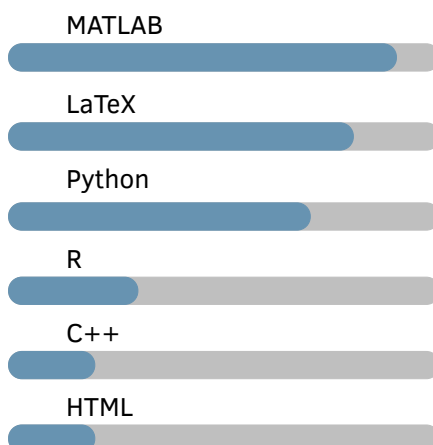
- 2013 – 2019 **Mathematical Engineer** Universidad de Chile  
Grade: 6.5/7.0
- 2019 – 2020 **Master in Engineering Sciences, minor Applied Mathematics** Universidad de Chile  
Grade: 6.6/7.0
- 2016 – 2018 **Additional Specialization: Minor in Astronomy** Universidad de Chile  
Grade: 6.2/7.0

## Working Experience

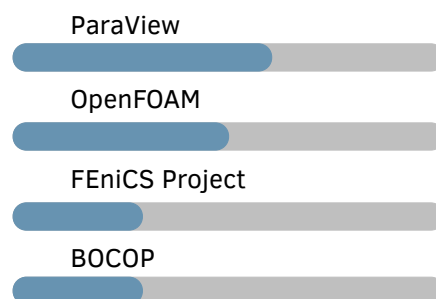
- 2019–2020 **Research and Thesis** Universidad de Chile  
Hydrodynamical of the Red Tide in Quellón Bay.  
Advisor: Carlos Conca, Co-advisor: Jorge San Martín.
  - Implementation of the Navier-Stokes equations and the Advection-Difussion equation in MATLAB, using the Finite Volume Method.
  - Use of the open source CFD software OpenFOAM to solve the equations and compare the solutions obtained with the method implemented in MATLAB.
  - Grade: 7.0/7.0. Graduated with maximum distinction.

- January 2017 **Professional Internship I** DAS (Department of Astronomy)  
Treatment of images via interferometry. Supervision: PhD. Simón Cassasus and PhD. Pablo Román. Classification: 7.0/7.0
- January 2018 **Professional Internship II** DIM ( Department of Mathematics Engineering)  
Computational algorithm for the Legendre-Fenchel conjugate. Supervision: Dr. Abderrahim Hantoute. Classification: 7.0/7.0
- January 2019 **Professional Internship III** CMM (Center for Mathematical Modeling)  
Study of Stokes and Navier-Stokes, validation of numerical algorithms. Supervision: PhD. Raúl Gormaz. Classification: 7.0/7.0

## Programming



## Mathematical Softwares



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## About me

I am passionate about math and programming. More than a specific area, I'm interested in real life problems; to model problems and solve them with mathematics as a tool. I am curious as a scientist, I like to be constantly acquiring new knowledge.

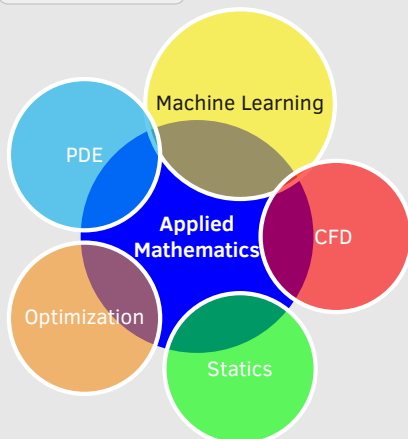
## Interests

Computer Science

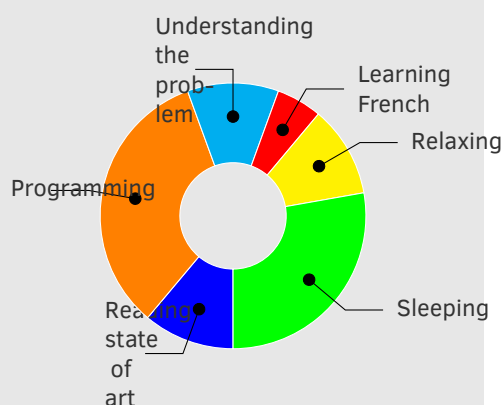
Mathematical Modelling

Numerical Analysis

Data Analysis



## A day of work



## Seminars

November 27 - 29 **Workshop CeBIB (Centre for Biotechnology and Bioengineering)**

Poster presentation: Hydrodynamical model of Red Tide in Quilón Bay

## Awards

2018 Highlighted Student Facultad de Ciencias Físicas y Matemáticas

## Teaching

Fall 2016 Test grader MA2002 - Advanced Calculus  
Spring 2016 Test grader MA2002 - Advanced Calculus  
Fall 2019 Teacher's assistant MA5602 - Non stationnary modeling  
Spring 2019 Profesor Auxiliar MA1101 - Introduction to Álgebra  
Spring 2019 Tutor SIPEE's Program MA1102 - Introduction to Álgebra  
Spring 2019 Ayudante MA1002 - Single Variable Calculus  
Spring 2019 Tutor SIPEEE's Program MA1002 - Single Variable Calculus  
Spring 2019 Test grader MA1102 - Linear Algebra

## Languages

Spanish (Native) ●●●●●●  
(B1) ●●●●●●  
French (A1) ●●●●●●

## Extracurricular activities

2015-2018 **cde! member (Student Development Center)** FCFM  
I participated in a social group at University called Cde!, which consisted of doing volunteer work during the holidays and visiting regularly Senam's children.

Autumn 2015 **Volunteer Work in San Clemente** cde!  
We painted a rural school and put grass.  
Responsible in charge: Nicolás Quezada Lezana.

Winter 2017 **Volunteer Work in Colina** cde!  
Sustainable garden construction at Font School.  
Responsible in charge: Francisca Guzmán Aliste.

2017-2018 Secretary cde!

2017 Sustainability Representative DIM