# Rodrigo Andre Zelada Mancini

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

👤 August 09, 1994

✉ Estación Central, Santiago, Chile.

📞 +569 37180729

🌐 https://rodrigozelada.github.io

@ rodrigo.zelada@ug.uchile.cl

## Social Network

in linkedin.com/in/rodrigo-andre-zelada-mancini-b15553184/

🐙 github.com/RodrigoZelada

## Skills

⚖ Enthusiast

🗂 Persistent

🎓 Work to achieve goals.

## Referees

- Professor PhD. Carlos Conca
  Mail: cconca@dim.uchile.cl
  Phone: +56 2 2978 4459

- Professor PhD. Jorge San Martin
  Mail: jorge@dim.uchile.cl
  Phone: +56 2 2978 4473

- Professor PhD. Juan Peypouquet
  Mail: jpeypou@dim.uchile.cl
  Phone: +56 2 2978 0952

- Professor PhD. Daniel Quiroz
  Mail: dquiroz@dim.uchile.cl
  Phone: +56 2 2977 7541

## Education

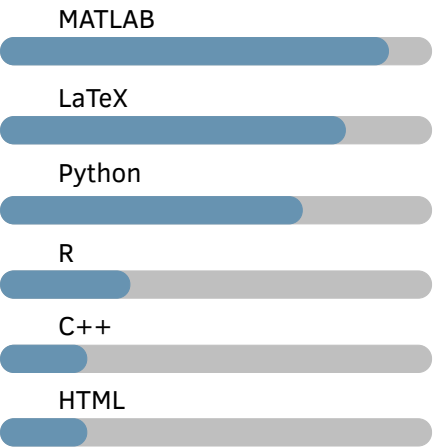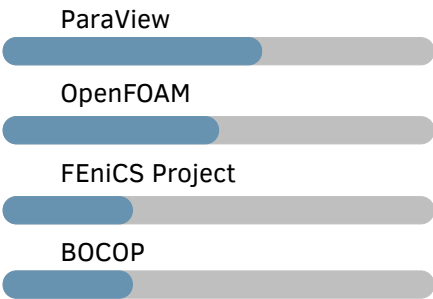| | | |
|---|---|---|
| 2013 – 2019 | **Mathematical Engineer**<br>Grade: 6.5/7.0 | Universidad de Chile |
| 2019 – 2020 | **Master in Engineering Sciences, minor Applied Mathematics**<br>Grade: 6.6/7.0 | Universidad de Chile |
| 2016 – 2018 | **Additional Specialization: Minor in Astronomy**<br>Grade: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

## 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: PhD. 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

- MATLAB
- LaTeX
- Python
- R
- C++
- HTML

## Mathematical Softwares

- ParaView
- OpenFOAM
- FEniCS Project
- BOCOP

# Rodrigo Andre Zelada Mancini

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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.
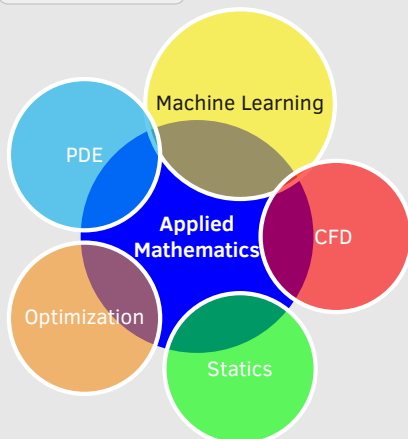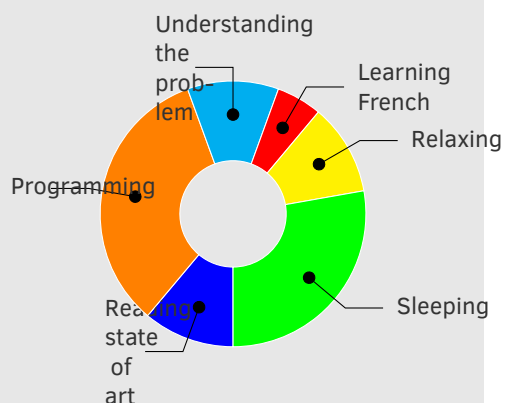
## Interests ──────

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 Quellón 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 Sename'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 |