Rodrigo Andre Zelada Mancini

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

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- @ 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
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- Professor PhD. Daniel Quiroz
  Mail: dquiroz@dim.uchile.cl
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Education

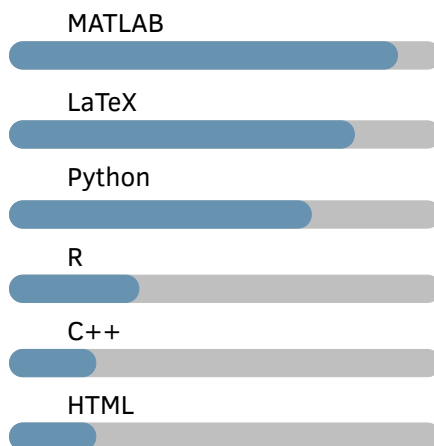|		
2013 – 2019	**Mathematical Engineer** Grade: 6.5/7.0	Universidad de Chile
2019 – 2020	**Master in Engineering Sciences, minor Applied Mathematics** Grade: 6.6/7.0	Universidad de Chile
2016 – 2018	**Additional Specialization: Minor in Astronomy** Grade: 6.2/7.0	Universidad de Chile

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
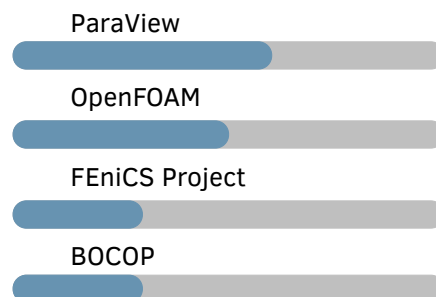
January 2018   **Professional Internship II**   DIM (Department of Mathematics Engineering)
Computational algorithm for the Legendre-Fenchel conjugate. Supervision: Dr. Abderrahim Hantoute. Classification: 7.0/7.0

January 2019   **Professional Internship III**   CMM (Center for Mathematical Model)
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

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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.
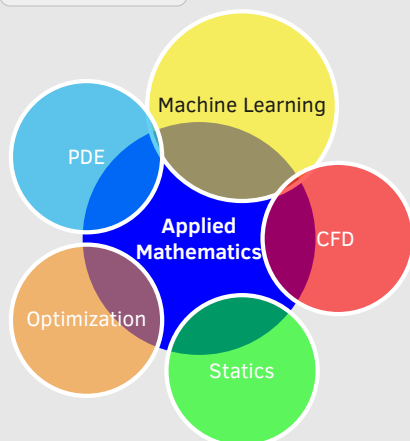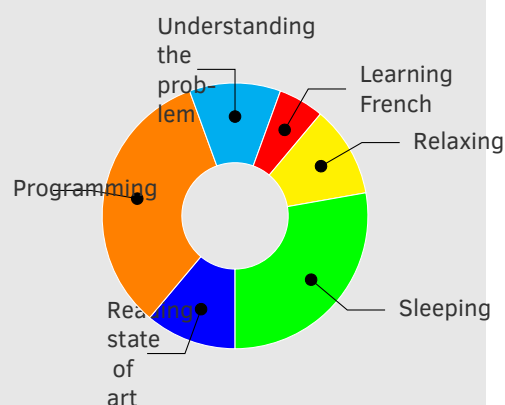
Interests ———

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