

Carlos Henrique Venturi Ronchi

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github.com/chronchi

EDUCATION

University of São Paulo - USP, São Carlos

August 2017 – July 2019

Master in Mathematics

University of Bonn

March 2015 - February 2016

Brazil Scientific Mobility Program with emphasis in Mathematics

Federal University of Paraná - UFPR

Graduated in July 2017

Bachelor of Science in Mathematics

GPA 93.99/100

WORK EXPERIENCE

Master Student (with scholarship)

São Carlos, São Paulo, Brazil

University of São Paulo – USP, São Carlos

August 2017 - Present

- Study of persistent homology, a recent research area of mathematics for analyzing data and its properties;
- Implement algorithms for CHomP Project, a Rutgers University based project on persistent homology.

Scientific Project (with scholarship)

Curitiba, Paraná, Brazil

Federal University of Paraná - UFPR

August 2013 - July 2014

March 2016 - July 2017

- Studied foundations of analysis and multilinear algebra;
- Studied numerical analysis methods for matrix decomposition;
- Studied and implemented stochastic, conjugate gradient method, SVM, neural networks and logistic regression.

Educational Project (with scholarship)

Curitiba, Paraná, Brazil

Federal University of Paraná - UFPR

August 2013 - July 2014

March 2016 - August 2016

- Developed teaching resources to teach high level mathematics to 100 high school students during one week;
- Organized a one week long academic week for mathematician students, with courses and invited lecturers;
- Teaching assistant during one semester.

MAJOR PROJECTS

LaTeX handwritten classification

June 2016 – July 2017

A deep learning based algorithm to classify handwritten characters supported by LaTeX

- Studied stochastic gradient descent, neural networks and convolutional neural networks;
- Implemented deep learning methods using Julia and the TensorFlow API.

Curitiba Tourism

May 2017– July 2017

An algorithm to identify tourism attractions in Curitiba based on images

- Implemented the classifier and augmented the data using Python;
- An algorithm that identifies five major tourism attractions of Curitiba.

SKILLS

PROGRAMMING LANGUAGES

2 years: Julia, Python

1 year : Matlab/Octave, R

TECHNOLOGIES

HTML, CSS, Git

AWARDS

2x Bronze Medal in the National Astronomy Olympiad (2010/2011)

ONLINE COURSES

Machine Learning (Stanford, 2016), Programming in Python (Code Academy, 2016)

LANGUAGES

Portuguese: native speaker

English: very good command

German: excellent command