

# Daniel Severo

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## EDUCATION

### University of Toronto

Exchange Program in ECE  
2013 to 2014 | Toronto, Canada

### Federal University of SC

B.Sc. in Electronics Engineering  
2010 to 2015 | Florianópolis, Brazil

## AWARDS

### Student Merit Award

Faculty Elected Best Student in the Class  
of 2015/1

### Student Merit Medal

Highest GPA of the Class of 2015/1

### SwB Scholarship

Awarded a full scholarship that covered tuition, transportation, necessary materials and living costs to study 2 academic semesters at the University of Toronto.

## PROGRAMMING

### Languages

Python • Scala

### Tools & Libs.

pandas • Sklearn • Jupyter  
Dask • Spark • Neo4j

### Open Source

[Dask](#)  
[Dask-ML](#)  
[Striatum](#)

## SPOKEN LANGUAGES

### English

Native • 2018 IELTS 8.5

### Portuguese

Native

### Spanish

Basic

## RESEARCH

### Syrian-Lebanese Hospital

Advisor: [Prof. Estevam Hruschka](#) | Jan 2019 – Now

Working on Named Entity Recognition with [FHIR](#) and Semantic Search methods for health-care text data in Brazilian Portuguese.

### University of Toronto

Advisor: [Prof. Frank Kschischang](#) | May 2014 – Sep 2014

Technical report with a mathematical proof of functionality, of a highly efficient pseudo-random number generator: [The Ziggurat Method](#); Research in Physical Layer Network Coding presented at [UnERD 2014](#).

### Federal University of Santa Catarina

Advisor: [Prof. Danilo Silva](#) | Sep 2014 – Feb 2015

Worked on lowering the complexity of a wireless non-coherent transmission scheme known as Blind Compute-and-Forward. Results were presented at the [SP Coding School](#) at São Paulo, Brazil.

Advisor: [Prof. Eduardo Bezerra](#) | Aug 2012 – Apr 2013

Management of the [Floripa-Sat project](#), thought up by researchers and students of the Federal University of Santa Catarina, it aims at and launching nano-satellites for academic purposes.

## WORK EXPERIENCE

### Independent Contractor | Machine Learning Engineer

January 2018 – Today | Remote

- Developing a Fast Healthcare Interoperability Resources DataLake for running high volume machine learning models.
- Worked on feature engineering and mathematical modeling for clustering algorithms used to segment patients into similar health group.
- Ranked patients by future spendings using financial data achieving a precision at n=1,000 of 50% from a 15,000 total.
- Predicted patient LOS (Length of Stay) with regression techniques and hospital sensor data;
- Modified CoSimRank to create a similarity measure between developers and companies using Stack OverFlow data using Neo4j and Python.

### Chaordic | Head of Data Science

May 2016 – January 2018 | Florianópolis, Brazil

- Developed recommendation algorithms for E-commerce customers;
- [Provided ad-hoc big data analyses to find insights from our data](#);
- Design and monitor competitive A/B experiments devised to validate our systems performance in the face of competition.
- [Internal A/B testing tool using the SciPy and Jupyter stack](#);
- [Bandit algorithms for online optimization](#);

### CERTI Foundation | Research Engineer

May 2015 – May 2016 | Florianópolis, Brazil

- Implemented signal processing routines (filter design and realization) in C.
- Programmed back-end and front-end Python software for Raspberry Pi.
- Embedded eLua on a platform previously developed by CERTI.