

# Marcel de Sena Dall'Agnol

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## Education

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### University of Warwick

PHD IN COMPUTER SCIENCE

Coventry, UK

Oct. 2019 - Jan. 2024 (ongoing)

### Instituto Nacional de Matemática Pura e Aplicada (IMPA)

MASTER'S IN MATHEMATICS

Rio de Janeiro, Brazil

Mar. 2017 - Feb. 2019

### University of California, San Diego (UCSD)

UNDERGRADUATE EXCHANGE PROGRAM IN COMPUTER SCIENCE

San Diego, USA

Jan. 2012 - Dec. 2012

### Universidade de São Paulo (USP)

B.S. IN MECHATRONICS ENGINEERING (WITH CERTIFICATE OF EMPHASIS IN COMPUTER SCIENCE)

São Carlos, Brazil

Jan. 2009 - Dec. 2014

## Research Interests

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Algorithms and complexity, coding theory and quantum computation.

## Internships

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### Robotics Institute - Carnegie Mellon University

SUMMER INTERNSHIP

Pittsburgh, USA

Jun. 2012 - Sep. 2012

Developed and deployed a web service for precision enhancement of GPS data collected by an autonomous vehicle.

### Physics Institute - Universidade de São Paulo

SCIENTIFIC INITIATION

São Carlos, Brazil

Aug. 2010 - Jul. 2011

Designed, built and installed a temperature monitor for a Cesium atomic clock. Supported by a scholarship from CNPq.

## Teaching

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### University of Warwick

ASSISTANT TUTOR

Coventry, UK

Oct. 2019 - present

Taught seminar sessions, marked exercises/exams and assisted students individually in the following modules: *Algorithms* (2020), *Complexity of Algorithms* (2019, 2020), *Logic and Verification* (2020) and *Quantum Computing* (2020).

### IMPA

TEACHING ASSISTANT

Rio de Janeiro, Brazil

Mar. 2019 - Jun. 2019

Assisted first-year master's students in the course *Algebra I*.

### Projeto Âncora

EDUCATOR

Cotia, Brazil

Aug. 2014 - Dec. 2016

- Tutored groups of students in primary education with personalized learning;
- Oriented student projects and work groups on a variety of topics, including computer maintenance and informatics, bullying and harassment prevention and culinary studies;
- Assisted in the development of a web platform used to share and catalog students' and educators' work;
- Oriented study groups in mathematics;
- Gave talks and courses on the school's pedagogical approach.

### Emancipa

TEACHER

São Carlos, Brazil

Apr. 2013 - Jul. 2014

Taught math and physics in a volunteer-run, free of cost preparation program for the Brazilian undergraduate admission exams.

### USP

TEACHING ASSISTANT

São Carlos, Brazil

Feb. 2013 - Nov. 2013

Assisted first-year undergraduate students in two courses: *Analytic Geometry* and *Linear Algebra*.

## Publications

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### SODA 2021

A Structural Theorem for Local Algorithms with Applications to Coding, Testing, and Privacy  
(with Tom Gur and Oded Lachish)

Virtual

### CHI 2013

MotionDraw: A Tool for Enhancing Art and Performance Using Kinect  
(with D. G. Rodrigues, E. Grenader, F. Nos, T. Hansen and N. Weibel)

Paris, France

### SIICUSP 19

Temperature Monitoring System for an Atomic Clock  
(with Daniel V. Magalhães)

São Carlos, Brazil

2011

## Talks

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### WOLA 2020

A structural theorem for local algorithms with applications to coding, testing, and delegation

Virtual

Jul. 2020

### WPPCS 2019

Sunflowers, daisies and local codes

Coventry, UK

Dec. 2019

### IMPA Colloquium

A crash course on the theory of computation

Rio de Janeiro, Brazil

May 2019

### CryptoRave 2018

The mathematical beauty of cryptography

São Paulo, Brazil

May 2018

## Paper reviews

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IEEE Transactions on Information Theory (2020), ITCS (2020, 2021).

## Honours and Qualifications

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2019 **Centre for Doctoral Training postgraduate studentship**, University of Warwick

2013 **OnDaF**, German CEFR Level B1

2007 **CPE**, English CEFR Level C2

## Conferences/Events Attended

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### CCC

Virtual

Jul. 2020

### STOC

Virtual

Jul. 2020

### AlgoUK

Coventry, UK

Sep. 2019

### CIMPA Research School on *Elliptic Curves: Arithmetic and Computation*

Montevideo, Uruguay

Feb. 2019

### International Congress of Mathematicians

Rio de Janeiro, Brazil

Aug. 2018

### Latin American Week on Coding and Information

Rio de Janeiro, Brazil

Jul. 2018

### 30<sup>th</sup> and 31<sup>st</sup> Brazilian Colloquia of Mathematics

Rio de Janeiro, Brazil

Jul. 2015 and Jul. 2017

# Skills

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**Languages** Portuguese and English (fluent), Spanish (intermediate), German (basic)  
**Programming** Python, C/C++, Ruby/Rails, Matlab/Octave, LaTeX