# Marcelo Prates,

Data Scientist at Poatek IT Consulting



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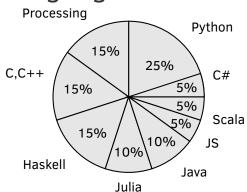


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## Skills —

- Deep Learning
- DL for computer vision (CNNs) and sequences / language modelling (RNNs)
- Neural-Symbolic Reasoning / Geometric Deep Learning / **Graph Neural Networks**
- Deep Reinforcement Learning
- Constraint Satisfaction / Combinatorial Optimization
- Data Science

# Languages -



## **Professional Experience**

Aug 2015 - Today

**Data Scientist** Porto Alegre, Brazil Poatek IT Consulting

## **Education**

Aug 2015 - July 2019 PhD, Computer Science

PPGC - UFRGS

Porto Alegre, Brazil

PhD Thesis: Learning to Solve  $\mathcal{NP}$ -Complete Problems

Mar 2010 - Aug 2015

**BSc, Computer Science** Porto Alegre, Brazil

**UFRGS** 

## Research

2015 - 2019

PhD, Computer Science

PPGC - UFRGS

- Phase transitions on constraint satisfaction problems
  - Problem Solving at the Edge of Chaos: Entropy, Puzzles and the Sudoku Freezing Transition, ICTAI 2018
- · Ethics of artificial intelligence
  - On Quantifying and Understanding the Role of Ethics in AI Research: A Historical Account of Flagship Conferences and Journals, GCAI 2018
  - Assessing Gender Bias in Machine Translation A Case Study with Google Translate (Measuring the extent of gender bias in translations from gender neutral languages to English)
- · Deep Learning
  - Neural Networks Models for Analyzing Magic: The Gathering Cards, ICONIP 2018
  - Learning to Solve NP-Complete Problems A Graph Neural Network for the Decision TSP, AAAI 2019
  - Multitask Learning on Graph Neural Networks Learning Multiple Graph Centrality Measures with a Unified Network, ICANN
  - Graph Colouring Meets Deep Learning: Effective Graph Neural Network Models for Combinatorial Problems, ICTAI 2019

2012 - 2015

#### **BSc, Computer Science**

**UFRGS** 

- Social & Human Computation
  - Collaboration in Social Problem-Solving: When Diversity Trumps Network Efficiency, AAAI 2015
  - Leveraging Collaboration: A Methodology for the Design of Social Problem-Solving Systems, HCOMP 2013

## **Experience**

April 2018 Today

**Volunteer Mathematics Teacher** ONGEP Pré-Vestibular Popular

2017 Today

### **Deep Learning Experience**

PPGC - UFRGS

· Experience with industrial deep learning tools and techniques including Tensorflow, Keras, Pytorch, CNNs & GNNs

2015 Today

#### Experience as a generative artist

Years of experience with generative art in Processing, Open-Processing, Haskell & Python