

# André Evaristo dos Santos

Ph.D. student, M.Sc. in Computer Science, Industrial Engineer

Date of birth: February 8<sup>th</sup>, 1992  
Citizenship: Brazilian  
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## EDUCATION

2016  
PRESENT

**University of Regina, Canada** — *Ph.D. of Science Student in Computer Science*

- Supervisor: Dr. Cory Butz
- Study emphasis: Deep Learning & Probabilistic Graphical Models

2015  
2016

**University of Regina, Canada** — *Master of Science in Computer Science*

- Supervisor: Dr. Cory Butz
- Study emphasis: Probabilistic Graphical Models
- Graduate grade point average: 92.8

2010  
2014

**University of Santa Catarina State, Brazil** — *Bachelor of Industrial System Engineering*

2013

**University of Regina, Canada** — *Science Without Borders Brazilian Exchange Program - CNPq*

2007

**SENAI, Brazil** — *Maintenance Electrician Industrial Training Course*

## PUBLICATIONS

### Papers in Refereed Journals

1. C. J. Butz, J. S. Oliveira, A. E. dos Santos, A. L. Madsen, *An Empirical Study of Bayesian Network Inference with Simple Propagation*, **International Journal of Approximate Reasoning**, Vol. 92, 198–211, 2018.
2. C. J. Butz, A. E. dos Santos, J. S. Oliveira, C. Gonzales, *An Empirical Study of Testing Independencies in Bayesian Networks using  $rp$ -Separation*, **International Journal of Approximate Reasoning**, Vol. 92, 270–278, 2018.
3. C. J. Butz, A. E. dos Santos, J. S. Oliveira, C. Gonzales. *On a Simple Method for Testing Independencies in Bayesian Networks*, **Computational Intelligence**, Vol. 34, No. 3, 789–801, 2018.
4. C. J. Butz, J. S. Oliveira, A. E. dos Santos, *On Darwinian Networks*, **Computational Intelligence**, Vol. 33, No. 4, 629–655, 2017.
5. A. E. dos Santos, A. T. Bringhenti, J. I. Zimmermann, G. O. Verran, R. K. Scalice, D. Bond, *Proposal and evaluation of a selection procedure for cast parts*, **Journal of the Brazilian Society of Mechanical Sciences and Engineering**, Vol. 39, No. 8, 3151–3163, 2017.

### Refereed Conference Papers

1. C. J. Butz, J. S. Oliveira, A. E. dos Santos, A.L. Teixeira, *Deep Convolutional Sum-Product Networks*, **Thirty-Third AAAI Conference on Artificial Intelligence (AAAI)**, 2019.
2. C. J. Butz, A. L. Teixeira, J. S. Oliveira, A. E. dos Santos, *On the Tree Structure of Deep Convolutional Sum-Product Networks*, **Thirty-Second International Florida Artificial Intelligence Research Society Conference (FLAIRS)**, 500–503, 2019.
3. C. J. Butz, A. E. dos Santos, J.S. Oliveira, A. L. Madsen, *Exploiting Symmetry of Independence in  $d$ -Separation*, **Thirty-second Canadian Conference on Artificial Intelligence (AI)**, 42–54, 2019.
4. A. L. Madsen, C. J. Butz, J. S. Oliveira, A. E. dos Santos, *Solving Influence Diagrams with Simple Propagation*, **Thirty-second Canadian Conference on Artificial Intelligence (AI)**, 68–79, 2019.

## SKILLS

Artificial Intelligence  
Deep Learning  
Machine Learning  
Industry 4.0  
Web Development  
Product Development  
Engineering  
Sum-Product Networks  
Bayesian Networks  
Join Tree Propagation  
Python, C++, R  
JavaScript, PHP, MySQL

## TEACHING

Discrete Computational Structures  
Cs310  
  
Data Structures and Abstractions  
CS210 Lab  
  
Web and Database Programming  
CS215 Lab  
  
Programming and Problem Solving  
Cs110 Lab

## LANGUAGES

English  
Advanced Professional Proficiency  
  
Portuguese  
Functionally Native Proficiency

5. C. J. Butz, J. S. Oliveira, A. E. dos Santos, A. L. Teixeira, P. Poupart, A. Kalra, *An Empirical Study of Methods for SPN Learning and Inference*, **Ninth International Conference on Probabilistic Graphical Models (PGM)**, 49--60, 2018.
6. A. L. Madsen, C. J. Butz, J. S. Oliveira, A. E. dos Santos, *Simple Propagation with Arc-Reversal in Bayesian Networks*, **Ninth International Conference on Probabilistic Graphical Models (PGM)**, 260--271, 2018.
7. C. J. Butz, A. E. dos Santos, J. S. Oliveira, J. Stavrinos, *Efficient Examination of Soil Bacteria using Probabilistic Graphical Models*, **Thirty-first International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems**, 315--326, 2018.
8. C. J. Butz, J. S. Oliveira, A. E. dos Santos, *On Learning the Structure of Sum-Product Networks*, **IEEE Symposium Series on Computational Intelligence**, 2997--3004, 2017.
9. A. E. dos Santos, C. J. Butz, J. S. Oliveira, *On Converting Sum-Product Networks into Bayesian Networks*, **Thirtieth Canadian Conference on Artificial Intelligence (AI)**, 329--334, 2017.
10. J. S. Oliveira, C. J. Butz, A. E. dos Santos, *Resolving Inconsistencies of Scope Interpretations in Sum-Product Networks*, **Thirtieth Canadian Conference on Artificial Intelligence (AI)**, 303--315, 2017.
11. C. J. Butz, A. E. dos Santos, J. S. Oliveira, *On Finding Relevant Variables in Discrete Bayesian Network Inference*, **Thirtieth International Florida Artificial Intelligence Research Society Conference (FLAIRS)**, 730--735, 2017.
12. C. J. Butz, A. E. dos Santos, J. S. Oliveira, *Relevant Path Separation: A Faster Method for Testing Independencies in Bayesian Networks*, **Eighth International Conference on Probabilistic Graphical Models (PGM)**, 74--85, 2016.
13. C. J. Butz, J. S. Oliveira, A. E. dos Santos, A. L. Madsen, *On Bayesian Network Inference with Simple Propagation*, **Eighth International Conference on Probabilistic Graphical Models (PGM)**, 62 -- 73, 2016.
14. C. J. Butz, A. E. dos Santos, J. S. Oliveira, C. Gonzales, *A Simple Method for Testing Independencies in Bayesian Networks*, **Twenty-ninth Canadian Conference on Artificial Intelligence (AI)**, 213--223, 2016.
15. A. L. Madsen, C. J. Butz, J. S. Oliveira, A. E. dos Santos, *On Tree Structures used by Simple Propagation for Bayesian Networks Inference*, **Twenty-ninth Canadian Conference on Artificial Intelligence (AI)**, 207--212, 2016.
16. C. J. Butz, J. S. Oliveira, A. E. dos Santos, A. L. Madsen, *Bayesian Network Inference with Simple Propagation*, **Twenty-ninth International Florida Artificial Intelligence Research Society Conference (FLAIRS)**, 650 -- 655, 2016.
17. C. J. Butz, A. E. dos Santos, J. S. Oliveira, C. Gonzales, *Testing Independencies in Bayesian Networks with i-Separation*, **Twenty-ninth International Florida Artificial Intelligence Research Society Conference (FLAIRS)**, 644 -- 649, 2016.
18. C. J. Butz, J. S. Oliveira, A. E. dos Santos, *Darwinian Networks*, **Twenty-eighth Canadian Conference on Artificial Intelligence (AI)**, 16--29, 2015.
19. C. J. Butz, J. S. Oliveira, A. E. dos Santos, *Determining Good Elimination Orderings with Darwinian Networks*, **Twenty-eighth International Florida Artificial Intelligence Research Society Conference (FLAIRS)**, 600 -- 603, 2015.

## EXPERIENCE

- 2019 **Computer Science Department - University of Regina, Canada** — *University Teaching Fellowship CS310 Discrete Computational Structures - Sessional Lecturer*
- 2015 **Computer Science Department - University of Regina, Canada** — *Graduate Teaching Assistant CS110, CS215, C210 - Lab instructor, Marker*
- 2015 **Audio Visual Services - University of Regina, Canada** — *Casual clerk*
- 2015 **Audio Visual Services - University of Regina, Canada** — *Distant education broadcasting operator*
- 2013 **Audio Visual Services - University of Regina, Canada** — *Co-op placement*
- 2011 **Guhring Brasil Ferramentas LTDA, Brazil** — *Logistic assistant*
- 2012

## LANGUAGES - cont.

Spanish  
Conversational Proficiency

French  
Elementary Proficiency

## AWARDS

Graduate Studies Research Fellowship (GRF)  
\$22,623.38/year for 4 years  
Fall/2016

Scholarly Awards  
\$5,600 Winter/2016  
\$6,000 Fall/2015  
\$3,500 Summer-Spring/2015  
\$6,000 Winter/2015

Science Without Borders  
SWG/CanadaCBIE  
\$ 65,023.41 BLR  
2013

## VOLUNTEER/COMMUNITY

University of Regina  
Jiu Jitsu Club  
Treasurer (2019)  
President (2018)  
Logo creator (2018)  
Treasurer (2017)

Brazilian Students Association  
of University of Regina  
Treasurer (2015-2019)

RPIRG The Green Patch  
Garden  
Logo creator (2016)

UDESC Introduction to  
Computers for the Elderly and  
Adults (Voo Livre Project)  
Instructor (2010)