# 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

2016

2010

2014

2013

2007

PRESENT

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

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

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

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

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

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

## **PUBLICATIONS**

# **Papers in Refereed Journals**

- 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.

#### **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.
- 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.
- 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

## **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

- Arc-Reversal in Bayesian Networks, Ninth International Conference on Probabilistic Graphical Models (PGM), 260--271, 2018.
- C. J. Butz, A. E. dos Santos, J. S. Oliveira, J. Stavrinides, 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.
- 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
- Computer Science Department University of Regina, Canada Graduate Teaching Assistant CS110, CS215, C210 Lab instructor, Marker
- Audio Visual Services University of Regina, Canada Casual clerk
- Audio Visual Services University of Regina, Canada Distant education broadcasting operator
- Audio Visual Services University of Regina, Canada Co-op placement
- Guhring Brasil Ferramentas LTDA, Brazil Logistic assistant

#### **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**

2018 2019	University of Regina Jiu Jitsu Club - President
2018	University of Regina Jiu Jitsu Club - Logo creator
2017 2018	University of Regina Jiu Jitsu Club - Treasurer
2015 2016	Brazilian Students Association of University of Regina - Treasurer
2016	RPIRG The Green Patch Garden - Logo creator
2010	UDESC Introduction to Computers for the Elderly and Adults (Voo Livre Project) - Instructor