



**INTERVIEW WITH  
NICK CERCONO  
YORK UNIVERSITY**



**REPORT ON  
CANADIAN AI'2015**



**NEWS ABOUT  
CANADIAN AI'2016**



**CAIAC AWARD  
RECIPIENTS,  
UPCOMING EVENTS,  
AND MORE!**

# The Herald



Welcome to the third edition  
of the CAIAC Herald!

Bienvenue à la troisième  
édition du CAIAC Herald!

## The CAIAC Herald - Vol 3

The purpose of this publication is to keep you informed of the new developments at CAIAC and in the Canadian AI community. In addition, each edition features an interview with an eminent member of our community. In this issue, our guest of honour is Nick Cercone of York University.

For more information about the Canadian Artificial Intelligence Association, please visit our Website at: <https://www.caiac.ca/>

# Interview with Nick Cercone

## Entrevue avec Nick Cercone

**CAIAC**

*What is, in your opinion, the most important development in Artificial Intelligence that took place in recent years or is in the process of taking place?*

**NC**

Machine learning, especially deep learning. Advances in many areas of artificial intelligence are increasingly dependent on machine learning techniques and algorithms for advances both theoretically and pragmatically.

**CAIAC**

*Why do you believe it is a significant development and what is its scope. Could you compare its projected impact to the impact that earlier advances in AI have had?*

**NC**

GOFAI (good old fashion AI) of the late 60's and 70's set the tone for much of what has shaped AI today. The MIT AI lab, Stanford CS and SAIL, SRI, CSLI led the way along with a number of other labs. Winston's learning from structural examples forms the basis of much machine learning research, Winograd's NLP work, although giving way to other grammatical theories (GPSGs, HPSGs) did produce the notion of procedures as representations of data, pattern-directed procedure invocation, microplanner (Sussman, Hewitt) and Programmer for writing systemic grammars (Haliday) etc. Schank and Wilks promoted semantics over syntax (meaning based analyses). Representation theory was formalized with the work of Schubert. Mylopoulos, Reiter,

Woods, Brachman, Levesque, Israel, etc. Modern advances in learning, language processing, planning, etc. owe their current status to these early pioneers. We went through a period of trading the quest for a general intelligence toward expert applications and I believe that the pendulum is swinging back to the quest for a more general intelligence.



Dr. Cercone research interests in artificial intelligence: automated natural language understanding, computational linguistics, and knowledge representation.

**CAIAC**

*How do you believe that this new development will change our everyday lives?*

**NC**

IBM Watson is already having inroads on natural language processing, social media analyses, health informatics and treatment and is being applied to a wide variety of applications. Due to the presence of big data, especially streaming data form the internet of

things (50 billion devices connected by 2020), modern AI techniques have had to focus more on processing on the fly and making crucial decisions with partial information.

**CAIAC**

*What part has Canada played or is currently playing in this new development?*

**NC**

Canada has many prominent researchers who have and are contributing as the best in the world (Schubert, Mylopoulos, Reiter, Plylyshyn, Elcock, Mackworth, etc.) and even better, the group of younger faculty in Canadian universities have the potential (and are actualizing that potential) for many future advances.



# Canadian AI'2015 Report

## Rapport sur la conference du Canadian AI 2015

By Denilson Barbosa and Evangelos Milios

The 28th Canadian Conference on Artificial Intelligence (AI 2015) built on a long sequence of successful conferences, bringing together Canadian and international researchers, presenting and discussing original research. The conference was held in Halifax, Nova Scotia, Canada, during June 2–2, 2015, and was collocated with the 41st Graphics Interface Conference (GI 2015), and the 12th Conference on Computer and Robot Vision (CRV 2015).

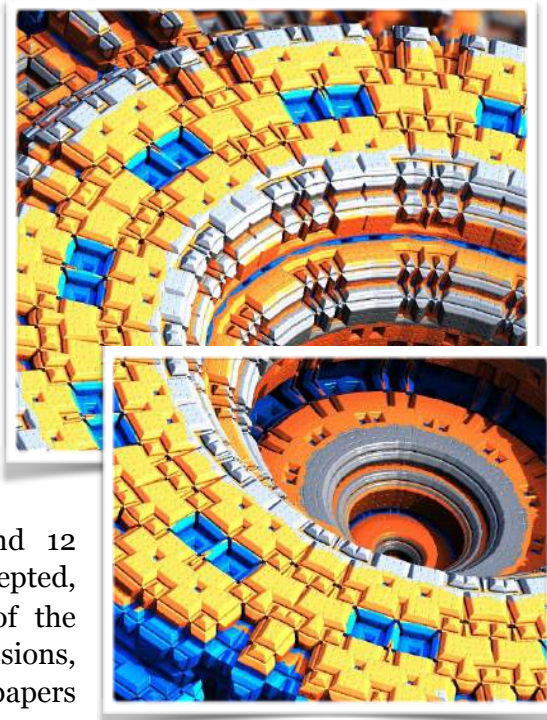
AI 2015 attracted 81 submissions from Canada and internationally. Each submission was reviewed in double-blind mode by at least three Program Committee members. For the conference and the proceedings 15 regular papers and 12 short papers were accepted, i.e., 18.5% and 15% of the total number of submissions, respectively. Regular papers were allocated 16 pages in the proceedings, while short papers were allocated 8 pages. The proceedings include eight additional papers from the Graduate Student Symposium.

The conference program was enriched by two keynote speakers, two invited speakers, and three tutorials. The academic keynote speaker was Janyce Wiebe, University of Pittsburgh, and the industry keynote speaker was Charles Elkan, Amazon.com and University of California, San Diego. The invited speakers were Csaba Szepesvári, University of Alberta,

and Diana Inkpen, University of Ottawa. The tutorials were given by Axel Soto and Evangelos Milios, Paul Hollensen and Thomas Trappenberg, Dalhousie University, and Dominik Slezak, University of Warsaw and Infobright.com.

We want to extend our warm thanks to all the individuals who contributed to the success of the conference: Pawan Lingras, Saint Mary's University, and Stan Matwin, Dalhousie University, the General Chairs of the three collocated conferences, Artificial Intelligence, Graphics Interface, and Computer and Robot Vision (AI/GI/CRV); Sageev Oore and Jason Rhineland, Saint Mary's University, the Local Arrangements Chairs for AI/GI/CRV; Andrew Valencik, the Registration Chair; Danny Silver, Acadia University, and Marina Sokolova, University of Ottawa, the Chairs of the Graduate Student Symposium; Marina Sokolova, the Publicity Chair; Armin Sajadi, AI 2015 Web Site Design. The Program Committee members and external reviewers provided timely and helpful reviews.

AI 2015 was sponsored by the Canadian Artificial Intelligence Association (CAIAC). Nathalie Japkowicz, the President of CAIAC, and the CAIAC Executive Committee, provided essential advice and guidance based on their experience from previous Canadian AI conferences.



## CAIAC Award Recipients Récipiendaires des recompenses du CAIAC

source: caiac.ca

- Dr. Nick Cercone received the Lifetime Achievement Award. This award is presented to an individual to recognize a lifetime of scientific excellence and outstanding contributions to the field of Artificial Intelligence.



- Yaoliang Yu, University of Alberta, was awarded with CAIAC's Doctoral Dissertation Award. His advisors were Dale Schuurmans and Csaba Szepesvári and the title of his thesis was "Fast Gradient Algorithms for Structured Sparsity."
- William Leif Hamilton, McGill University, is the recipient of CAIAC's Master's Thesis Award. His advisor was Joelle Pineau and the title of his thesis was "Compressed Predictive State Representation: An Efficient Moment-Method for Sequence Prediction and Sequential Decision-Making."
- Pooria Joulani, University of Alberta, and Zongxu Mu, University of British Columbia, were each awarded a travel grant of \$1000 to attend the International Joint Conference on Artificial Intelligence (IJCAI).

Congratulations to all winners!

## News about Canadian AI'2016 Information sur le Canadian AI'2016

source: conferences.lakeheadu.ca

The 29th Canadian Conference on Artificial Intelligence will be held from May 31st to June 3rd 2016 in Victoria, BC, on the west coast of Canada. The event is collocated with the Canadian Graphics Interface and the Computer and Robot Vision conferences. These events will bring together hundreds of leaders in research, industry, and government, as well as Canada's most accomplished students, to showcase Canada's ingenuity, innovation and leadership in intelligent systems and advanced information and communications technology.

We welcome novel papers on all aspects of AI, either theoretical or applied. The proceedings will be published in Springer's Lecture Notes in Artificial Intelligence series, and selected papers will be invited to a special issue of Computational Intelligence. All submissions will go through a double-blind review process. Submitted papers must be formatted using the Springer LNCS style and not exceed 12 pages for long papers or 6 pages for short papers.

For additional information, visit the joint 2016 AI/GI/CRV website.



# New at CAIAC

## Quoi de Neuf a CAIAC?

sources: [cs.ubc.ca/news](http://cs.ubc.ca/news) | [caiac.ca](http://caiac.ca)

- UBC Computer Science Professor Holger Hoos has been elected as a Fellow of the Association for the Advancement of Artificial Intelligence. The prestigious fellowship recognizes researchers who have made significant and sustained contributions to the field of artificial intelligence. Professor Hoos was elected for his significant contributions to the field of automated reasoning and the development of widely used methods for algorithm selection and configuration.



- 2015 was an election year. The new Canadian Artificial Intelligence Association (CAIAC) Executive Committee is:



President **Cory Butz**  
University of Regina  
[president@caiac.ca](mailto:president@caiac.ca)



Vice President **Ziad Kobti**  
University of Windsor  
[vice.president@caiac.ca](mailto:vice.president@caiac.ca)



Treasurer **Xin Wang**  
University of Calgary  
[treasurer@caiac.ca](mailto:treasurer@caiac.ca)



Secretary **Marina Sokolova**  
University of Ottawa and IBDA  
[secretary@caiac.ca](mailto:secretary@caiac.ca)



Past President **Nathalie Japkowicz**  
University of Ottawa  
[past.president@caiac.ca](mailto:past.president@caiac.ca)

Our purpose is to organize and sponsor a number of events. In particular, we are responsible for the Canadian AI Conference, the Graduate Symposium, Dissertations and Master's Thesis awards, the Lifetime Achievement Award, and the Distinguished Service Award. We also plan new activities and services for the AI community in Canada. We operate by holding monthly (or more frequent, when needed) Skype meetings to set up events and discuss new projects. The role of the president and vice president is to oversee the proper operation of the organization. The treasurer manages CAIAC's finances and the secretary records all internal and external communications and manages the website. If you have ideas about how to improve the services provided by CAIAC, please do not hesitate to contact us at the e-mail addresses provided above. We welcome your comments and suggestions!



# Community Announcements

source: [apps.ysf-fsj.ca/virtualcwsf](http://apps.ysf-fsj.ca/virtualcwsf)

At the Canada-Wide Science Fair 2015, CAIAC awarded Mr. Sajeev Kohli, Kitchener Waterloo Bilingual School, the Canadian Artificial Intelligence Association Award for his project, entitled the Residential Emergency Detecting Multifunctional Apparatus. R.E.D.M.A. is an innovative system that allows homeowners to monitor the environmental conditions of their property in real-time via a Smartphone from any remote location. The system also transmits e-mail alerts in the event of a basement flood or fire. The prototype implementation of the system has a demonstrated accuracy in excess of 99%.



The Canada-Wide Science Fair 2015 was held in Fredericton, New Brunswick. Next year will be in Montreal, Quebec with another opportunity to continue encouraging our world's future innovators!

## Upcoming Events Evenements a venir



- ▶ Canadian AI Conference May 31st to June 3rd 2016 in Victoria, BC
- ▶ Graduate Symposium Dissertations and Masters' award competition
- ▶ Distinguished Award nomination
- ▶ Lifetime Achievement Award nomination

# The caiac Herald

THE OFFICIAL NEWSLETTER OF CAIAC