

# Terry L. Ruas | Curriculum Vitae

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## Education

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### Ph.D. Computer and Information Science

*University of Michigan - Dearborn, MI, USA*

2015–2019

### M.S. Information Engineering

*Federal University of ABC (UFABC), SP, Brazil*

2012–2013

### B.S. Computer Science

*Federal University of ABC (UFABC), SP, Brazil*

2007–2010

### B.S. Science and Technology

*Federal University of ABC (UFABC), SP, Brazil*

2007–2010

## Teaching and Academic Experience

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### National Institute of Informatics - Tokyo

*Research Internship, Natural Language Processing  
Text Mining*

**Japan**

*Winter 2018–Summer 2018*

### University of Michigan - Dearborn

*Graduate Student Instructor, Teacher and Laboratory Instructor  
CIS 150 - Computer Science I*

**USA**

*Summer 2016–Fall 2017*

### Veltech Dr.RR & Dr.SR University, Chennai, Tamil Nadu

*Teaching Assistant, Assistant  
Information Retrieval and Text Mining*

**India**

*Jul/Ago 2017*

### University of Michigan - Dearborn

*Graduate Student Instructor, Lab Instructor, Mentor and Grader  
CIS 150 - Computer Science I*

**USA**

*Winter 2016*

### University of Michigan - Dearborn

*Graduate Student Instructor, Mentor and Grader  
CIS 275 - Discrete Structures I and CIS - 375 - Software Engineering I*

**USA**

*Fall 2015*

### Federal University of ABC (UFABC)

*Teaching Assistant  
Artificial Life in Computing Systems*

**Brazil**

*Winter 2009*

### National Council for Scientific and Technological Development (CNPq)

*Undergraduate Research Program  
Multiagent Simulation Modeling the Phenomenon of Fire Propagation*

**Brazil**

*2008–2009*

## Industry Experience

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### IBM

*Product Manager, Cost Branding & Delivery Service Planner  
Software Technical Support Services (TSS)*

**Brazil**

*2014–2015*

<b>IBM</b> Software Support Coordinator Application Integration Middleware, Open Systems, Power and Storage Team Leader	<b>Brazil</b> 2012–2014
<b>IBM</b> IT Specialist IBM HTTP Server, WebSphere Portal, WebSphere Content Management Support	<b>Brazil</b> 2010–2012
<b>IBM</b> IT Specialist (Internship) WebSphere Application Server Support	<b>Brazil</b> 2010
<b>IBM</b> IT Specialist (Internship) BlackBerry Enterprise Server Support	<b>Brazil</b> 2009–2010

## Research and Publications

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### Journals

1. **RUAS, T. L.**; PEREIRA, L. *How to build Science, Technology, and Innovation Indicators using Web of Science, Derwent World Patent Index, Bibexcel, and Pajek?*. In: Perspectives in Information Science (PCI), v. 19, n. 3, p.52-81, 2014.
2. NORONHA, E. A.; MARIETTO, M. G. B.; BORN, M.; BOTELHO, W. T.; **RUAS, T. L.**; FRANCA, R. S.; SOARES, C. *Multi-Agent Based Simulation to Explore the Dynamics in the Diffusion of Innovation Phenomenon*. International Journal of Simulation Systems, Science & Technology (IJSSST 2013), v. 13, n. 4, p. 22-32, 2013.

### Conferences

1. **RUAS, T.**; GROSKY, W.; *Semantic Feature Structure Extraction From Documents Based on Extended Lexical Chains* . In: Ninth Global WordNet Conference (GWC 2018). Singapore, Singapore, 2018.
2. **RUAS, T.**; GROSKY, W.; *Keyword Extraction Through Contextual Semantic Analysis of Documents*. In: The 9th International ACM Conference on Management of Digital EcoSystems (MEDES 2017). Bangkok, Thailand, 2017. (To Appear).
3. **RUAS, T. L.**;PEREIRA, L.; GROSKY, W.; *Science, Technology and Innovation Exploration in Biophotonics Through a Scientometric Approach*. In: 2017 IEEE International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy and Materials (ICSTM 2017). Chennai, India, 2017.
4. ALKHAZI, B.; **RUAS, T. L.**; KESSENTINI, M.; WIMMER, M.; GROSKY, W.; *Automated Refactoring of ATL Model Transformations: A Search-Based Approach*. In: 19th International ACM/IEEE Conference on Model Driven Engineering Language and Systems (MODELS 2016), p. 295-304. Saint-Malo, France, 2016. (23.9% acceptance rate)
5. NORONHA, E. A.; **RUAS, T. L.**; MARIETTO, M. G. B.; BORN, M.; BOTELHO, W. T.; FRANCA, R. S.; SOARES, C. *Simulating the Diffusion of Innovation Process: a Multiagent Approach*. In: The International Workshop on Applied Modeling and Simulation (WAMS 2013), v. 6. p. 26-34. Buenos Aires, 2013.
6. JACINTHO, L. F. O.; BATISTA, A. F. M.; **RUAS, T. L.**; MARIETTO, M. G. B.; SILVA, F. A. *An Agent-Based Model for the Spread of the Dengue Fever: A Swarm Platform Simulation Approach*. In: Agent-Directed Simulation Symposium of the 2010 Spring Simulation Multi Conference (ADS 2010), Orlando, USA, 2010.
7. **RUAS, T. L.**; MARIETTO, M. G. B.; FRANCA, R. S.; BATISTA, A. F. M. *A Model for Fire*

*Spreading by Multi-Agent Systems: A RoboCup Rescue Simulation and Swarm Platform Approach.* In: The Second International Conference on the Applications of Digital Information and Web Technologies (ICADIWT 2009), p. 380-385, London, England, 2009.

8. **RUAS, T. L.**; MARIETTO, M. G. B.; BATISTA, A. F. M.; FRANCA, R. S. *Modeling Multiagent Systems with the RoboCup Rescue: A Fire Propagation Simulation.* In: III Paranaense Meeting of Computing (III EPAC), Cascavel, PR, Brazil, 2009.

### Chapters in Books.....

1. **RUAS, T. L.**; BATISTA, A. F. M.; MARIETTO, M. G. B.; FRANCA, R. S.; Heideker, Alexandre; NORONHA, E. A. ; SILVA, A. F. *Modeling Artificial Life Through Multi-Agent Based Simulation. Multi-Agent Systems - Modeling, Control, Programming, Simulations and Applications.* Rijeka: INTECH, v. 1, p. 41-66, 2011.
2. BATISTA, A. F. M.; MARIETTO, M. G. B.; BOTELHO, W. T.; Kobayashi, G.; ALVES, P. B.; CASTRO, S.; **RUAS, T. L.** *Principles of Agent-Oriented Programming. Multi-Agent Systems - Modeling, Control, Programming, Simulations and Applications.* Rijeka: INTECH, v. 1, p. 317-342, 2011.

### Magazines.....

1. GROSKY, W. I. and **RUAS, T. L.**; *The Continuing Reinvention of Content-Based Retrieval: Multimedia is Not Dead,* In: Visions as Views, IEEE Multimedia, Journals & Magazines, vol. 24, n. 1, p. 6-11, 2017.

### Workshops and Extended Abstracts.....

1. **RUAS, T. L.** and GROSKY, W. I. *Text Similarity Using Multilevel Fixed Lexical Chains.* In: Brazilian Graduate Student Conference, University of Southern California, Los Angeles, CA, USA, 2017.
2. **RUAS, T. L.**; MARIETTO, M. G. B. *Multiagent Simulation Modeling the Phenomenon of Fire Propagation.* In: 2nd Symposium of Scientific Initiation of UFABC, Santo Andre, SP, Brazil, 2009.

### Seminars and Presentations.....

1. *Semantic Feature Structure Extraction From Documents Based on Extended Lexical Chains .* In: Ninth Global WordNet Conference (GWC 2018). Singapore, Singapore, 2018.
2. *Keyword Extraction Through Contextual Semantic Analysis of Documents.* In: The 9th International Conference on Management of Digital EcoSystems (MEDES 2017). Bangkok, Thailand, 2017.
3. *Semantic-Based Document Retrieval Through Extended Lexical Chains,* U.S. Army Engineer Research and Development Center - Information Technology Laboratory (ERDC – ITL), Jackson, MS, USA, 2017.
4. *Using Fixed Lexical Chains and Wordnet in Semantic Extraction for Documents,* Guest Lecture, Bishop Heber College, Tiruchirappalli, Tamil Nadu, India, 2017.
5. *Flexible Lexical Chains to Fixed Lexical Chains using Wordnet,* Guest Lecture, Veltech Dr.RR & Dr.SR University, Chennai, Tamil Nadu, India, 2017.
6. *Science, Technology and Innovation Exploration in Biophotonics Through a Scientometric Approach,* ICSTM 2017, Veltech Dr.RR & Dr.SR University, Chennai, Tamil Nadu, India, 2017.
7. *Exploring Lexical Chains in Semantic Document Retrieval,* Seminars in Computer Science, Federal University of ABC (UFABC), Santo Andre, SP, Brazil, 2017.
8. *Semantic-Based Document Retrieval Through Fixed Lexical Chains,* 1st Software Engineering

- Research Lab Workshop, University of Michigan - Dearborn, Dearborn, MI, USA, 2017.
9. *Text Similarity Using Multilevel Fixed Lexical Chains*, BRASCON, University of Southern California, Los Angeles, CA, USA, 2017.
  10. *Concepts of Scientometrics*, Research Seminars for the Master Program in Information Engineering, Federal University of ABC (UFABC), Santo Andre, SP, Brazil, 2014.
  11. *Simulating the Diffusion of Innovation Process: A Multi-Agent Approach*, The International Workshop on Applied Modeling and Simulation (WAMS 2013), Buenos Aires, Argentina, 2013.
  12. *The Strategic Role of Visualizing Networks of Scientific Research for Innovation*, IBM Research Brazil Colloquium, Sao Paulo, Brazil, 2013.
  13. *An Agent-Based Model for the Spread of the Dengue Fever: A Swarm Platform Simulation Approach*, Spring Simulation Multi-Conference/Agent-Directed Simulation, Orlando, FL, USA, 2010.
  14. *Modeling and Simulation of the Spread of Dengue: A Multiagent Approach*, 17th International Symposium of Scientific Initiation of University of Sao Paulo, Sao Carlos, Brazil, 2009.
  15. *Multiagent Simulation on Fire Propagation : An Approach via RoboCup Rescue Simulation Environment*, II Undergraduate Scientific Research Symposium, Santo Andre, SP, Brazil, 2009.

## Awards and Scholarships

**2018:** 1st Call NII International Internship Program (2017), National Institute of Informatics (NII), *Text Media - Scientific paper mining and recommendation*, Akiko Aizawa's Laboratory, Tokyo, Japan.

**2018:** Global Wordnet Association Support for Students Award, Ninth Global WordNet Conference (GWC 2018), *Semantic Feature Structure Extraction from Documents Based on Extended Lexical Chains*, Singapore, Singapore.

**2017:** College of Engineering and Computer Science Doctoral Conference Travel Grant, University of Michigan - Dearborn, MI, USA.

**2017:** Student Conference Presentation Grant, University of Michigan - Dearborn, MI, USA.

**2015 – 2019:** Fulbright Scholarship, Science Without Borders Program, *LASPAU administered Scholarship for University of Michigan – Dearborn Ph.D. Program in Computer and Information Science*.

**2013:** Best Paper Award, 6th International Workshop on Applied Modeling & Simulation, IEEE, *The Diffusion of Innovation Process: A Multi-Agent Approach*.

**2009:** Honorable Mention, II Undergraduate Scientific Research Symposium, Representation and Communication Track, *Multi-Agent Simulation Modeling the Spread of Fire Phenomena*.

**2009:** 2nd Place, II UFABC Computer Science Competition, Artificial Intelligence and Simulation Track, *Modeling and Simulation of the Spread of Dengue: A Multi-Agent Approach*.

**2009:** 2nd Place, II UFABC Computer Science Competition, Software Engineering, Database and Information Systems Track, *Implementation of a Management Information System*.

## Event and Conference Staff

1. 1st Workshop on Multimedia Pragmatics: A Cross-Fertilization of Content-Based Retrieval and Natural Language Processing (MMPRag), Publicity Chair, Miami, Florida, USA
2. 2nd Symposium on Search Based Software Engineering Symposium (SSBSE), Raleigh, North Carolina, USA 2016.
3. LEGO Robots Competition – First Week of the Center for Mathematics Computation and

- Cognition, UFABC, Santo Andre, SP, Brazil, 2009.
4. First Week of the Center for Mathematics Computation and Cognition UFABC, Santo Andre, SP, Brazil, 2009.
  5. 1st Workshop of Computer Science Projects, UFABC, Santo Andre, SP, Brazil, 2008.
  6. First Symposium of Undergraduate Scientific Research of UFABC, Santo Andre, SP, Brazil, 2008.

## Program Committee

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1. 12th International Conference on Semantic Computing (Sub Reviewer), ICSC, IEEE, 2018.
2. 1st Workshop on Multimedia Pragmatics: A Cross-Fertilization of Content-Based Retrieval and Natural Language Processing, MMPrag, ACM, 2018.
3. 9th International Conference on Management of Digital EcoSystems (Student Track Reviewer), MEDES, ACM, 2017.
4. 12th International Conference on Digital Information Management, ICDIM, IEEE, 2017.
5. 11th International Conference on Semantic Computing, ICSC, IEEE, 2017.
6. 11th International Conference on Digital Information Management, ICDIM, IEEE, 2016.
7. International Conference on Communication Systems and Network Technologies, CSNT, IEEE, 2012.
8. First International Conference on Integrated Intelligent Computing, CIIC, IEEE, 2010.

## Registered Programs

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<b>ReadWriteBuffer</b>	<b>Brazil</b>
<i>Software Registry, National Institute of Industrial Property</i>	<i>2014</i>
Patent: Computer Software. Registry number: BR512014000077-0.	
<b>FixDate</b>	<b>Brazil</b>
<i>Software Registry, National Institute of Industrial Property</i>	<i>2014</i>
Patent: Computer Software. Registry number: BR512014000078-8.	

## Certifications

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<b>IBM</b>	<b>Brazil</b>
<i>Software Support Specialization Foundation Level, Career Certification</i>	<i>2012</i>
The Supporting IT Solutions Capability Center	
<b>IBM</b>	<b>Brazil</b>
<i>IBM Certified System Administrator, IBM Certification Program</i>	<i>2011</i>
WebSphere Application Server Network Deployment V7.0	

## Languages

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**Portuguese:** Native Speaker  
**English:** Proficient  
**Spanish:** Basic

## Research Interests

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|-------------------------------|----------------------------------|
| - Natural Language Processing | - Natural Language Understanding |
| - Data Science                | - Text Mining                    |
| - Scientometrics              | - Bibliometrics                  |