

Roque Enrique López Condori

Curriculum Vitae

Personal Information

Name Roque Enrique López Condori
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Education

2013–2015 **MSc in Computer Science**, *São Paulo University*, Brazil.
2006–2010 **BSc in Computer Science**, *San Agustín National University*, Peru.
2001–2005 **High School Diploma**, *Colegio Técnico Parroquial San Martín de Porres*, Peru.

Awards

- 2016, Finalist for the Best MSc Dissertation in IEEE Latin American Conference on Computational Intelligence, Colombia.
- 2014, Young Scientific Best Paper in VII International Conference on Intelligent Information and Engineering Systems, Poland.
- 2014, Master Scholarship granted by Samsung Brazil (2014-2015).
- 2013, Top 5 undergraduate thesis in V Simposio Peruano de Inteligencia Artificial, Peru.
- 2010, Placed in top 5 in the undergraduate, Peru.
- 2005, First place and scholarship High School Diploma, Peru.

Experience

Industrial Work

Feb 2017 **Research Engineer**, *Inria*, France.
present I am working on extracting symbolic knowledge about objects and their characteristics from unstructured text (relying on natural language processing, machine learning and machine reading techniques), as well as available ontologies and knowledge on the Semantic Web.

- Oct 2016 **CTO, DoctorCV.**
 present Peruvian startup (<https://doctorcv.cl/>) which evaluates and proposes improvements in your CV using NLP techniques. It is like having a virtual recruiter expert who will tell what to change in the resume to increase the chances of being called to the job interview.
- July 2015 **Researcher, Software Engineer, Elabora Consultoria, Brazil.**
 Jan 2017 I researched some information retrieval techniques with machine learning methods and word embedding representations to create hierarchies of terms in collections of patent about different topics. In this project, I used Spark, HBase and Python.
- Oct 2013 **Software Engineer, Dicionário Criativo, Brazil.**
 Dec 2013 I implemented a crawler for Twitter in Python. This crawler collected public comments about music, books and films. I also developed a module to normalize these comments (spell checker, etc.). With this data and other resources the database was increased.
- Jan 2012 **Researcher, Software Engineer, Lindexa - Wayra Telefónica, Peru.**
 Dec 2012 I researched and developed some automatic techniques of opinion mining and sentiment analysis for Spanish language. In addition, I implemented a crawler for Facebook and Twitter in Python. This crawler collected all public comments written on these social networks. Lindexa was a winner startup of the first edition of Wayra Peru.
- Jan 2011 **Technical Researcher, Developer, Cátedra CONCYTEC, Peru.**
 Dec 2011 In general, we researched techniques to generate extractive summaries of many texts. These summaries selected the most important data in terms of coverage and representativeness. I also researched and implemented text classification and clustering algorithms.
- Sept 2010 **Interface Designer, Software Solutions S.A.C., Peru.**
 Dec 2010 We developed the Graphical User Interfaces of the Credits and Collections module, it included the elaboration of the navigability documents and prototypes. I also developed the executable prototype.
- Sept 2009 **Analyst, Developer, EPISUNSA Development Centre, Peru.**
 Dec 2009 Together with a group of colleagues, we worked on the design and development of the website of the Professional School of Systems Engineering.

Academic Work

- Feb 2014 **Teaching Assistant, Course: Professional Information in Computer Science,** with
 July 2014 Dr. Thiago Pardo at São Paulo University.
- June 2014 **Associate Editor, CompuScientia,** Peruvian Electronic Journal of the Students
 Dec 2014 Society of Computer Science.

Research Projects

- Feb 2017 **ALOOF: Autonomous Learning of the Meaning of Objects, Inria, France.**
 present The goal of ALOOF is to significantly advance the ability of today's robots and autonomous systems to adapt to ever changing, dynamic real world environments by enabling them to learn about the meaning of objects from resources accessible through the Web.
- July 2015 **Patent Faceted Searches Using Topic Modeling, Elabora Consultoria, Brazil.**
 Feb 2017 This project aimed to integrate advanced techniques of information retrieval for making faceted searches over big collections of patents about different topics.

Jan 2014 *Semantic Text Processing in Brazilian Portuguese*, Samsung – ICMC/USP,
June 2015 Brazil.

The overall objective of this project was to advance the state of the art in semantic processing of texts written in Brazilian Portuguese. With these resources, we built mining and summarization texts applications, focused on Internet opinions.

Jan 2011 *Automatic Summarization of Medical Records using Natural Language*

Dec 2011 *Processing techniques*, Cátedra CONCYTEC, Peru.

The goal of this project was to investigate and apply techniques to generate automatic summaries of many documents. We developed different methods to extract, select and organize the most important information.

Monographs

MSc Thesis *Title: Automatic Aspect-Based Opinion Summarization Methods*

Description: In this master's project are presented investigations to generate extractive and abstractive summaries of opinions using an aspect-based approach. Besides using known methods in the area, it also was proposed two new methods for Portuguese language which got the best performance in the experiments.

BSc Thesis *Title: Medical Documents Classification based on Keywords using Semantic Information*

Description: In this monograph, it is presented a method to classify medical documents which improves the results of Naive Bayes and Rocchio algorithm. This method, in addition to considering statistical information, taking into account the semantic relatedness between the keywords of medical documents.

Publications

Journal Articles

July 2017 **Roque López and Thiago Pardo**, *Opinion Summarization Methods: Comparing and Extending Extractive and Abstractive Approaches*, Expert Systems with Applications (ESWA), volume 78.

Conference Papers

Nov 2016 **Lucia Castro, Roque López, Gabriel Cavalcante and Luiz Lapolla**, *Towards Automatic Building of Term Hierarchies from Large Patent Datasets*, In the Proceedings of the V Artificial Intelligence and Natural Language Conference (AINL), Saint-Petersburg, Russia.

Apr 2015 **Roque López and Thiago Pardo**, *Experiments on Sentence Boundary Detection in User-Generated Web Content*, In the Proceedings of the XVI International Conference on Intelligent Text Processing and Computational Linguistics (CICLING), Cairo, Egypt.

Oct 2014 **Verônica Agostini, Roque López and Thiago Pardo**, *Automatic Alignment of News Texts and their Multi-document Summaries: Comparison among Methods*, In the Proceedings of the XI International Conference on Computational Processing of Portuguese (PROPOR), São Carlos, Brazil.

Oct 2014 **Roque López, Javier Tejada and Mikhail Alexandrov**, *Medical Texts Classification based on Keywords using Semantic Information*, In the Proceedings of the VII International Conference on Intelligent Information and Engineering Systems (INFOS), Rzeszow-Krynica, Poland.

- Sept 2012 **Roque López, Javier Tejada and Mike Thelwall**, *Spanish Sentistrength as a Tool for Opinion Mining Peruvian Facebook and Twitter*, In the Proceedings of the V International Conference on Intelligent Information and Engineering Systems (INFOS), Rzeszow-Krynica, Poland.
- Sept 2012 **Angels Catena, Mikhail Alexandrov and Roque López**, *Parameterization of comments from Peruvian Facebook and Twitter: Lexical Resources and Algorithm*, In the Proceedings of the V International Conference on Intelligent Information and Engineering Systems (INFOS), Rzeszow-Krynica, Poland.
- Oct 2012 **Alessandro Bokan, Roque López**, *Método No Supervisado para la sugerencia de Tags utilizando información semántica basada en conocimiento*, In the Proceedings of the IV Congreso Internacional de Computación y Telecomunicaciones (COMTEL), Lima, Peru.
- Nov 2011 **Roque López, Dennis Barreda and Javier Tejada**, *MFSRank: An Unsupervised Method to Extract Keyphrases Using Semantic Information*, In the Proceedings of X Mexican International Conference on Artificial Intelligence (MICAI). Lecture Notes in Artificial Intelligence. Springer, Puebla, Mexico.
- Nov 2011 **Roque López, Dennis Barreda, Javier Tejada and Luis Alfaro**, *Método Supervisado orientado a la clasificación automática de documentos. Caso Historias Clínicas*, In the Proceedings of the XXIII Encuentro Chileno de Computación (ECC), Curicó, Chile.
- Sept 2011 **Roque López, Mikhail Alexandrov and Javier Tejada**, *LexisTerm - The program for term selection by the criterion of specificity*, In the Proceedings of the IV International Conference on Intelligent Information and Engineering Systems (INFOS), Polanczyk, Poland.
- Sept 2011 **Ales Bourek, Mikhail Alexandrov and Roque López**, *Folksonomy - supplementing RICHE expert based taxonomy by terms from online documents*, In the Proceedings of the IV International Conference on Intelligent Information and Engineering Systems (INFOS), Polanczyk, Poland.
- Aug 2011 **Roque López, Dennis Barreda, Javier Tejada and Luis Alfaro**, *Clasificación automática de Historias Clínicas basada en Prototipos utilizando técnicas de Procesamiento de Lenguaje Natural*, In the Proceedings of the X Jornadas Peruanas de Computación (JPC), Pucallpa, Peru.
- Aug 2011 **Dennis Barreda, Roque López, Javier Tejada and Luis Alfaro**, *Un algoritmo genético para la agrupación de documentos aplicado en corpus con características diferentes*, In the Proceedings of the X Jornadas Peruanas de Computación (JPC), Pucallpa, Peru.

Workshop Papers

- June 2018 **Valerio Basile, Roque López and Elena Cabrio**, *Measuring Frame Instance Relatedness*, In the Proceedings of Joint Conference on Lexical and Computational Semantics (*SEM), co-located with NAACL, New Orleans, USA.
- June 2015 **Roque López, Lucas Avançaço, Pedro Balage, Alessandro Bokan, Paula Cardoso, Márcio Dias, Fernando Nóbrega, Marco Sobrevilla, Jackson Souza, Andressa Zacarias, Ariani Di Felippo, Eloize Seno and Thiago Pardo**, *A Qualitative Analysis of a Corpus of Opinion Summaries based on Aspects*, In the Proceedings of the IX Linguistic Annotation Workshop (LAW), co-located with NAACL, Colorado, USA.

Oct 2014 **Márcio Dias, Alessandro Bokan, Carla Chuman, Cláudia Barros, Erick Maziero, Fernando Nobrega, Jackson Souza, Marco Sobrevilla, Marina Delege, Lucía Castro, Naira Silva, Paula Cardoso, Pedro Balage, Roque López, Vanessa Marcasso, Ariani Felippo, Maria Graças, Thiago Pardo**, *Enriquecendo o Corpus CSTNews - a Criação de Novos Sumários Multidocumento*, In the Proceedings of the I Workshop on Tools and Resources for Automatically Processing Portuguese and Spanish (ToRPorEsp), co-located with PROPOR, São Carlos, Brazil.

Congress and Scientific Events

- 2018 **Assistant**, *North American Chapter of the Association for Computational Linguistics*, New Orleans - USA.
- 2018 **Assistant**, *XII CHIST-ERA Projects Seminar*, Paris - France.
- 2017 **Reviewer**, *IV SIMBig, Track on Applied Natural Language Processing*, Lima - Peru.
- 2016 **Assistant**, *III Latin American Conference on Computational Intelligence*, Cartagena - Colombia.
- 2015 **Assistant**, *XVI International Conference on Intelligent Text Processing and Computational Linguistics*, Cairo - Egypt.
- 2014 **Assistant**, *XI International Conference on Computational Processing of Portuguese*, São Carlos - Brazil.
- 2014 **Assistant**, *VII International Conference on Intelligent Information and Engineering Systems*, Krynica - Poland.
- 2013 **Assistant**, *V Simposio Peruano de Inteligencia Artificial*, Arequipa - Peru.
- 2011 **Assistant**, *X Mexican International Conference on Artificial Intelligence*, Puebla - Mexico.
- 2011 **Assistant**, *X Jornadas Peruanas de Computación*, Pucallpa - Peru.
- 2010 **Assistant**, *III Simposio Peruano de Inteligencia Artificial 2010*, Arequipa - Peru.
- 2010 **Assistant**, *Congreso Internacional de Dirección de Proyectos 2010*, Arequipa - Peru.
- 2010 **Assistant**, *XVI Congreso Internacional INFOTEK 2010 y FETEC 2010*, Arequipa - Peru.
- 2010 **Assistant**, *Footprint techniques, Scanning, Sniffing, Vulnerability Analysis and Countermeasures*, Arequipa - Peru.

Languages

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|------------|----------------|--------------------------|
| Spanish | Fluent | <i>native language</i> |
| English | Advanced Level | <i>completed studies</i> |
| Portuguese | Advanced Level | <i>completed studies</i> |

Programming Knowledge

Programming Languages

- Python
- Java
- C++

Big Data - Hadoop
- Spark
- HBase

Databases - MySQL
- PostgreSQL
- SQL Server

Others - Git
- NLTK
- Scikit-learn
- NumPy
- Linux

Main Interests

- Opinion Summarization
- Sentiment Analysis and Opinion Mining
- Natural Language Processing
- Machine Learning
- Data Science
- Software Development