

Carlos Alberto Alejandro CASTILLO Ocaranza

Doha, Qatar
+974 70194015

<http://www.chato.cl/research/>
chato@chato.cl

Education UNIVERSITY OF CHILE 2000–2004
Ph.D. in Computer Science; advisor: Ricardo Baeza-Yates.

UNIVERSITY OF CHILE 1994–2000
Computing Engineer. This is a 6.5-years-degree.
Graduated *summa cum laude*.

Post-doctoral fellow at Universitat Pompeu Fabra in Barcelona, Catalunya-Spain with Vicente López (2005) and Università di Roma “La Sapienza” in Rome, Italy with Stefano Leonardi (2006).

Publications The following is a selection of publications by topic, including acceptance rates in parenthesis. Full list available at <http://www.chato.cl/research/>

QUERY-REFORMULATION MINING

Aristides Anagnostopoulos, Luca Becchetti, Carlos Castillo and Aristides Gionis: “An Optimization Framework for Query Recommendation”. Web Search and Data Mining (WSDM), pp. 161-170, New York, USA. 2010. (16%)

Ilaria Bordino, Carlos Castillo, Debora Donato and Aristides Gionis: “Query Similarity by Projections on the Query-Flow Graph”. SIGIR 2010. ACM Press. (17%)

Paolo Boldi, Francesco Bonchi, Carlos Castillo, Sebastiano Vigna: “Query Reformulation Mining: Models, Patterns and Applications”. Information Retrieval, Springer. 2010.

Paolo Boldi, Francesco Bonchi, Carlos Castillo, Sebastiano Vigna: “From ‘dango’ to ‘japanese cakes’: Query Reformulation Models and Patterns”. In IEEE/ACM Web Intelligence. Milan, Italy, September 2009. IEEE CS Press. (18%) Best paper award.

Paolo Boldi, Francesco Bonchi, Carlos Castillo, Debora Donato, Aristides Gionis, Sebastiano Vigna: “The Query-Flow Graph: Model and Applications”. ACM CIKM, pp. 52-60. Napa Valley, CA, 2008. ACM Press. (17%).

WEB USAGE MINING

Ilija Subasic, Carlos Castillo: "The Effects of Query Bursts on Web Search Results". ACM/IEEE Web Intelligence 2010, pp. 374-381. Toronto, Canada. (17%). Best student paper award.

Francesco Bonchi, Carlos Castillo, Debora Donato, Aristides Gionis: "Topical Query Decomposition". Knowledge Discovery and Data Mining (KDD), pp. 609-618. Las Vegas, USA, 2008. ACM Press. (19%).

Barbara Poblete, Aristides Gionis, Carlos Castillo: "Dr. Searcher and Mr. Browser: a Unified Hyperlink-Click Graph". ACM CIKM, pp. 1123-1132. Napa Valley, CA, USA, 2008. ACM Press. (17%).

ADVERSARIAL IR ON THE WEB

Carlos Castillo, Marcelo Mendoza, Barbara Poblete: "Information Credibility on Twitter". World Wide Web Conference (WWW), pp. 675-684. Hyderabad, India. 2011. (12%)

Carlos Castillo and Brian D. Davison: "Adversarial Web Search". In Foundations and Trends in Information Retrieval, Vol. 4, No 5, pp 377-486. 2010. Now Publishers.

Jacob Abernethy, Olivier Chapelle, Carlos Castillo: "Graph Regularization Methods for Web Spam Detection". Machine Learning Journal, Vol. 81, No. 2, pp. 207-225, 2010. Springer.

Carlos Castillo, Debora Donato, Aristides Gionis, Vanessa Murdock, Fabrizio Silvestri: "Know your Neighbors: Web Spam Detection using the Web Topology". ACM SIGIR, pp. 423-430. Amsterdam, Netherlands, 2007. ACM Press. (17%).

Josiane Xavier-Parreira, Carlos Castillo, Debora Donato, Sebastian Michel, Gerhard Weikum: "The JXP Method for Robust PageRank Approximation in a Peer-to-Peer Web Search Network". The VLDB Journal, Vol. 17, No. 2, pp. 291-313, 2008. Springer.

Luca Becchetti, Carlos Castillo, Debora Donato, Ricardo Baeza-Yates, Stefano Leonardi: "Link Analysis for Web Spam Detection". ACM Transactions on the Web, Vol. 2, No. 1, Art. 2, 2008. ACM Press.

WEB CONTENTS AND USERS' CHARACTERIZATION

Ricardo Baeza-Yates, Carlos Castillo and Efthimis N. Efthimiadis: "Characterization of National Web Domains". ACM Transactions on Internet Technology, Vol. 7, No. 2, Art. 9. May 2007. ACM Press.

Ingmar Weber, Carlos Castillo: "Demographics of Web Search". ACM SIGIR, pp. 523-530. Geneva, Switzerland, 2010. ACM Press. (17%)

Luciana Buriol, Carlos Castillo, Debora Donato, Stefano Leonardi and Stefano Millozzi: "Temporal Evolution of the Wikigraph". ACM/WIC/IEEE Web Intelligence, pp. 45-51. Hong Kong, December 2006. IEEE CS Press. (18%).

Ricardo Baeza-Yates, Christian Middleton, Carlos Castillo: "The Geographical Life of Information". IEEE/ACM Web Intelligence. Milan, Italy, September 2009. IEEE CS Press. (18%).

Ricardo Baeza-Yates, Carlos Castillo and Felipe Saint-Jean: "Web Dynamics, Structure and Page Quality". In M. Levene and A. Poulouvasilis (eds.): "Web Dynamics", pp. 93-109, 2004. Springer.

WEB CRAWLING

Carlos Castillo, Ricardo Baeza-Yates, Berthier Ribeiro-Neto: "Web Crawling". Chapter 12 in Ricardo Baeza-Yates and Berthier Ribeiro-Neto, "Modern Information Retrieval, Second Edition". 2011. Addison-Wesley Professional.

Ricardo Baeza-Yates, Carlos Castillo, Mauricio Marin, Andrea Rodriguez: "Crawling a Country: Better Strategies than Breadth-First for Web Page Ordering". WWW, pp. 864-872. Chiba, Japan, 2005. ACM Press. (20%).

Carlos Castillo, Alberto Nelli and Alessandro Panconesi: "A Memory-Efficient Strategy for Exploring the Web". Web Intelligence Conference, pp. 680-686. Hong Kong, December 2006. IEEE CS Press. (18%).

Ricardo Baeza-Yates and Carlos Castillo: "Crawling the Infinite Web: Five Levels are Enough". Workshop of Algorithms on Web Graphs (WAW), pp. 156-167. Rome, Italy, 2004. Springer. (45%).

COMMUNITIES AND INFLUENCE

Aris Anagnostopoulos, Carlos Castillo, Aristides Gionis, Luca Becchetti, Stefano Leonardi: "Online Team Formation in Social Networks". WWW. Lyon, France. 2012. ACM Press. (12%)

Aris Anagnostopoulos, Carlos Castillo, Aristides Gionis, Luca Becchetti, Stefano Leonardi: "Power in Unity: Forming Teams in Large-Scale Community Systems". ACM CIKM, pp. 599-608. Toronto, Canada. 2010. ACM Press. (18%)

Michael Mathioudakis, Francesco Bonchi, Carlos Castillo, Aristides Gionis, Antti Ukkonen: "Sparsification of Influence Networks". Knowledge Discovery and Data Mining (KDD), pp. 529-537. San Diego, California, USA, 2011. ACM Press (8%).

Paolo Boldi, Francesco Bonchi, Carlos Castillo, and Sebastiano Vigna: "Viscous Democracy for Social Networks". In Communications of ACM, No 6, June 2011. ACM Press.

RANKING ON THE WEB AND SOCIAL MEDIA

Eugene Agichtein, Carlos Castillo, Debora Donato, Aristides Gionis, Gilad Mishne : "Finding High-Quality Content in Social Media". Web Search and Data Mining (WSDM), pp. 183-194. Stanford, CA, USA, 2008. ACM Press. (16%).

Carlos Castillo, Debora Donato, Aristides Gionis: "Estimating the Number of Citations using Author Reputation". String Processing and Information Retrieval Symposium (SPIRE), pp. 107-117. Santiago, Chile, 2007. Springer. (35%).

Ricardo Baeza-Yates, Paolo Boldi and Carlos Castillo: "Generalizing PageRank: Damping Functions for Link-Based Ranking Algorithms". ACM SIGIR, pp. 308-315. Seattle, Washington, USA, August 2006. ACM Press. (19%).

OTHER TOPICS

Eduardo Ruiz, Vagelis Hristidis, Carlos Castillo, Aristides Gionis and Alejandro Jaimes: "Correlating Financial Time Series with Micro-Blogging Data". Web Search and Data Mining (WSDM), pp. 513-522. Seattle, Washington, 2012. ACM Press. (21%).

Francesco Bonchi, Carlos Castillo, Aristides Gionis and Alejandro Jaimes: "Social Network Analysis and Mining for Business Applications". ACM Transactions on Intelligent Systems and Technology (TIST), Vol. 2 Issue 3, April 2011.

Francesco Bonchi, Carlos Castillo, Debora Donato, Aristides Gionis: "Taxonomy driven lumping for sequence mining". In the Data Mining and Knowledge Discovery Journal, ECML/PKDD special issue, Vol. 9, No. 2, pp. 227-244. 2009. Springer.

Luca Becchetti, Paolo Boldi, Carlos Castillo, Aristides Gionis: "Efficient Algorithms for Large-Scale Local Triangle Counting". In Transactions on Knowledge Discovery from Data, Vol. 4, No. 3, pp. 1-28. 2010. ACM Press.

Luca Becchetti, Paolo Boldi, Carlos Castillo, Aristides Gionis: "Efficient Semi-Streaming Algorithms for Local Triangle Counting in Massive Graphs". ACM SIGKDD, pp. 16-24. Las Vegas, USA, 2008. ACM Press. (19%).

Patrizia Andronico, Marina Buzzi, Carlos Castillo and Barbara Leporini: “Improving Search Engine Interfaces for Blind Users: a Case Study”. *Journal of Universal Access in the Information Society*, special issue on Information Systems Accessibility. Vol. 5, No.1, pp. 23-40, June 2006. Springer.

Teaching

UNIVERSITAT POMPEU FABRA 2005,2007-2008
Lecturer of the introductory course on databases (2005, 2007, 2008) and of the course on information retrieval (2005), the latter with Ricardo Baeza-Yates. Universitat Pompeu Fabra, Barcelona, Catalunya-Spain.

UNIVERSITÀ LA SAPIENZA 2006
Teaching assistant in the course on web information retrieval at Università di Roma “La Sapienza”, Italy.

UNIVERSITY OF CHILE 1998–2004
Lecturer on the course on Web Applications (2003), Information Retrieval with Ricardo Baeza-Yates (2003–2004), Development of Web Applications (2001). Teaching assistant of Programming Languages, Analysis and Design of Algorithms, and Introduction to Computer Science (1998–2000).

Other research activities

Organizer of the Joint WICOW/AIRWeb Workshop on Web Quality in 2011 with Zoltan Gyongyi, Adam Jatowt and Katsumi Tanaka, co-located with WWW 2011 in Hyderabad, India.

Organizer of the Adversarial Information Retrieval Workshop (AIRWeb) in 2008 with Kumar Chellapilla and Dennis Fetterly, co-located with WWW 2008 in Beijing, China.

Organizer of the Adversarial Information Retrieval Workshop (AIRWeb) in 2007 with Brian Davison and Kumar Chellapilla, co-located with WWW 2007 in Banff, Canada.

Organizer of the Graph Labeling Workshop (GraphLab) in 2007 with Ludovic Denoyer and Brian Davison, co-located with ECML/PKDD 2007 in Warsaw, Poland.

PC member of WWW 2008-2012, WSDM 2008-2011, SIGIR 2009-2011, KDD 2010-2011, AAI 2011, ECML/PKDD 2008-2009, SPIRE 2008, ECIR 2007-2008 & 2011, CIKM 2007 & 2009, INFOSCALE 2007-2008, LAWEB 2007, AIRWEB 2006.

Reviewer for ACM TWEB, ACM TOIT, ACM TOIS, IEEE Info. Sys., IEEE Int. Comp., PODS, JWE, SP&E, JASIST, IP&M. Member of the editorial board for the Journal on Internet Research.

Professional experience

QATAR COMPUTING RESEARCH INSTITUTE 2012–present
Senior Scientist with the Social Computing group.

YAHOO! RESEARCH 2006–2012
Senior Research Scientist at the Barcelona lab. Researched on Web spam detection, ranking on social media, and other topics. Postdoctoral Researcher (2006–2008), Research Scientist (2008–2011), Senior Research Scientist (2011–2012).

NEWTENBERG LTD. 2001–2004 (CTO) 2001–present (partner)
Founder, partner and CTO of this company, aimed at the development of applications that support both communication and coordination of people’s doings. Directed the development of an XML-based content management system that is currently the flagship product of the company; licensees include the World Bank, the ministries of education of Colombia and Chile, and several newspapers.

TECNONAUTICA S.A. 1995–1998
Worked as software developer in the development of applications for the Web, including a Web site generator, an application for generating charts and graphs for the Web, a system for on-line access counters, and an application for managing advertising campaigns on the Web.

Grants

TORRES QUEVEDO GRANT 2006–2008, 2010–2012
“Torres Quevedo” grant from the Ministry of Science and Innovation, Spain.

INSTITUTE OF ENGINEERS OF CHILE 2001
“Ismael Valdes” award, for a graduated engineer with achievements in leadership and a good student record at each of the nine main universities.

MILLENNIUM SCHOLARSHIP 2002–2004
From the Center of Web Research (CWR), funding for postgraduate studies for three years. The CWR is funded by the Millennium Program of the Ministry of Planning and Cooperation, Government of Chile.

Languages

Proficient in English and Spanish. Basic knowledge of Italian and Catalan.