

José Jair Cardoso de Santanna

Enthusiastic Teacher, Researcher and Developer

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Programming

C, Java, Python, C#,
MySQL, NoSQL,
Bigtable,
PIG, Scala & Impala

Languages

Dutch ★★☆☆☆
Spanish ★★★★★
English ★★★★★
Portuguese ★★★★★

Status

I am currently assistant professor at University of Twente. My activities are teaching and supervising students, performing independent research, acquiring funds and managing projects. Currently, I am leading two projects. The first is about gathering (and combining) data for a report on vulnerabilities in Dutch SCADA systems. The second project is about building a (large) public database with signatures of DDoS attacks. I am also involved in a project together with the Dutch High Tech Crime Unit entitled 'no more DDoS', aiming collection of evidences for attribution cases. In the last years, I acted as technical advisor to the Dutch National Cyber Security Center and to the Japanese Ministry of Internal Affairs and Communications, both on the topic of Cyber Security and DDoS attacks. I am very passionate in finding the best way to transmit my message to different audiences (ex. students and organisations). I have presented my work in more than 30 countries. The most frequent words to describe my presentations/lectures by attendees are enthusiastic, entertaining and easy to understand (http://jairsantanna.com/others_judgement).

Education

- 2013–2017 **Doctor** in Computer Science University of Twente, The Netherlands
"DDoS-as-a-Service-Investigating Booter Websites".
Supervisor: Prof. Dr. Ir. Aiko Pras
All pieces of work developed in this thesis are publicly available at my github (jjsantanna). Some of them has being used by both the security community and by network operators worldwide. One of the outcomes that stands out is publicly available at 'booterblacklist.com' and already downloaded by more than three thousand users worldwide.
- 2010–2012 **Master** in Computer Science Federal University of Rio Grande do Sul, Brazil
"A BPM-based Solution for Inter-domain Circuit Management".
Supervisor: Prof. Dr. Lisandro Zambenedetti Granville
The outcome of this work is still in production used by the Brazilian National Education and Research Network and available at 'meican.cipo.rnp.br'.
- 2005–2010 **Bachelor** in Computer Engineer Federal University of Pará, Brazil
"A Comparative Evaluation of DCCP Protocol in Mesh Networks."
Supervisor: Dr. Kelvin Lopes Dias

Experience

Technical Adviser

- 2016 **To the Yokohama National University** Japan
For the production of a report on "Reflection & Amplification DDoS attacks" requested by the Japanese Ministry of Internal Affairs and Communications.
- 2016 **To the Dutch National Cyber Security Center and the Scientific Research & Documentation Center** The Netherlands
For the production of a report on "Cyber metrics 2016: DDoS and Malware" requested by the Dutch Ministry of Security and Justice.

Student Supervisor

Among 10 supervised students: 6 had their research published in international academic conferences, 5 decided to follow towards the next academic degree [*] (Ph.D. or M.Sc.), 2 received the M.Sc. degree cum laude [+], 1 won the best paper award in an international conference [#], 1 won the second place of a renowned Dutch national prize (KIVI/Defensie & Veiligheid) for her thesis [!], and 2 are working as Digital Expert for the Dutch National High Tech Crime Unit [§].

[**M.Sc. Degree**] Kareem Fouda, Justyna Chromik[* ,+ ,!], Wouter de Vries[* ,#], Joey de Vries[+], Mark Wierbosch, and Jarmo van Lenthe[§].

[**B.Sc. Degree**] Calvin Hendriks, Roeland Krak[*], Max Kerkers[*], Dirk Maan[*§], Jochum Börger, and Guilherme Dressler.

Conference Organizer

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| 2016 | Shadow Technical Program Committee (TPC) | CNSM |
| | <i>IFIP/IEEE International Conference on Network and Service Management is the premier conference in the area of network and service management. A shadow TPC is an experimental initiative for PhDs become better TPCs in the future. My reviews have the same weight as the actual TPC reviews.</i> | |
| 2013-2016 | Technical Program Committee (TPC) | ERRC |
| | <i>Escola Regional de Redes de Computadores (pt_br), a conference for undergrad students from the south of Brazil. To motivate students to</i> | |
| 2012 | Local Organizing Committee | LatinCloud |
| | <i>IEEE Latin American Conference on Cloud Computing and Communications.</i> | |
| 2010 | Local Organizing Committee | SBRC |
| | <i>The Brazilian Symposium on Computer Networks and Distributed Systems.</i> | |

Software Developer

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| 2017–Now | Distributed Denial of Service Attacks Database (DDoSDB) |
| | Link: http://www.ddosdb.org
An initiative to develop the largest open database with DDoS attacks.
Languages: Python, Bash, Pig Latin & Apache Impala |
| 2016–2017 | Booter Blacklist |
| | Link: http://www.booterblacklist.com
A crawler and classifier of Websites that offer DDoS attacks as a paid service.
Languages: Python |
| 2010–2011 | Management Environment of Inter-domain Circuits for Advanced Networks (MEICAN) |
| | Link: http://meican.cipo.rnp.br/
Development of an Executable Network Management Policies Editor sponsored by the Brazilian National Education and Research Network (RNP).
Language: WS-BPEL |
| 2009 | Support for Planning Sustainable Electrical Power Generation via Vegetable Oil. |
| | Desktop application part of a Ph.D. thesis [link] sponsored by a subsidiary (Eletronorte) of the major Brazilian power utility (Eletrobrás).
Language: C#.Net & MySQL |