



# Javier A. Espinosa-Oviedo

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## Current Position

- Since 09/2019 **Postdoctoral Researcher • Univ. Lyon 3 Jean Moulin • France**  
Service Oriented Computing group
- Since 2015 **Associate Researcher • CNRS French-Mexican Laboratory of Informatics and Automatic Control**, Database Management group
- Since 2013 **Guest Researcher • Laboratory of Informatics of Grenoble • France**  
Distributed Data Management Systems group

## Employment Background

- 2018-2019 **Postdoctoral Researcher • Delft University of Technology • The Netherlands**  
Leiden-Delft-Erasmus Centre for BOLD Cities, Fac. Architecture & the Built Environment  
—Urban data management for disasters relief
- 2015-2017 **Postdoctoral Research Fellow • Barcelona Supercomputing Centre • Spain**  
Extreme Computing group, Computer Science department  
—Stream data processing for visualizing crowds moving in real-time in urban spaces
- 2013- 2015 **Postdoctoral Researcher • French-Mexican Laboratory of Informatics and Automatic Control (UMI CNRS LAFMIA 3175) • France**  
—NoSQL solutions for handling Big Data Velocity and Variety

## Educational Background

- 2009-2013 **PhD in Computer Science • University of Grenoble • France**  
Dissertation: "Active Policy Based Reliable Data Services Coordinations" (viva: 28 October 2013). Jury: Samir Tata (president), Daniela Grigori (reviewer), Mohand-Saïd Hacid (reviewer), Khalid Belhajjame. Advisors: C. Collet, G. Vargas-Solar, J.L. Zechinelli-Martini.
- 2006-2008 **MSc in Computer Science • Universidad de las Américas, Puebla • Mexico**  
Thesis: "C-Language: a language for defining contracts" (viva: 19 December 2008).  
Advisors: G. Vargas-Solar, J.L. Zechinelli-Martini.
- 2001-2006 **BE in Computer Systems Engineering • Universidad de las Américas, Puebla • Mexico**  
Final project: "Taurus: Automatic service composition system for astronomical data applications" (viva: 14 July 2007). Advisor: J.L. Zechinelli-Martini.

## Recognitions of Scientific Nature

- 2020 - 2024 **CNU Qualification.** Recognition of the French National Council of Universities (CNU) giving access to tenured positions at French universities.
- 2019 - now **Member of the Mexican National System of Investigators** (SNI level C). Distinction awarded by the Mexican CONACyT after evaluation of candidate's scientific contributions by a scientist committee composed of recognized researchers.
- 2016 - now **Regular member of the Mexican Academy of Computer Science** (AMEXCOMP). Membership granted after positive evaluation from the board.

## Research Projects

**PI** = Primary Investigator. **TT** = Technological Transfer Project.

- SUMMIT**  
2019  
**TT** **Multi-cloud services for the integration of heterogeneous data collections in multi-devices environments guided by SLA's.** Funding body: Rhône-Alpes-Auvergne Region. Call reference: AAP Pack Ambition 2018. PI: Chirine Ghedira (Univ. Lyon 3). Period: 2019-2021.
- SHARED-DATA**  
2019  
**PI** **Urban Data Management for Disaster Relief in Cities.** Funding body: LDE BOLD Cities Centre. Call reference: SHARED projects 2019-2023. PI: Javier Espinosa (TU Delft). Budget: 135K€
- TRIPLE-A**  
2019  
**Stimulating the Adoption of low-carbon technologies by homeowners through increased Awareness and easy Access.** Funding body: EU. Call reference: Interreg2seas-2016. PI: Vincent Gruis (TU Delft). Period: 2017-2020
- IPGH**  
2017-2018  
**Building the history of climate change in Latin America.** Funding body: IPGH. Call reference: PAT-2017. PI: Luis M. Vilches-Blázquez (U. Javeriana)
- LINKSIUM**  
2018  
**TT** **Technological transfer of the hybrid query engine HYPATIA in the context of IoT ecosystems.** Funding body: SATT LINKSIUM Grenoble Alpes. PI: Genoveva Vargas-SOLAR (CNRS-LIG). Period: 02.05 - 30.09.2018
- CONCERNS**  
2016-2017  
**PI** **Dealing with Crowd Distress by Building Secure Immigration Corridors.** Funding body: Microsoft Research, CONACyT. Call reference: Azure Data Science Awards 2016, CONACyT Postdoctoral Fellowship and mobility grants. PI: Javier Espinosa (BSC)
- POLIWEB**  
2013-2014  
**Analyzing Big Data Collections Produced by Political Parties.** Funding body: CNRS. Call reference: PEPS-2014. PI: Geraldine Castel (Stendhal University)
- CASES**  
2012-2016  
**Customised Advisory Services for Energy-efficient Manufacturing Systems.** Funding body: EU, Call reference: FP7-PEOPLE-2011-IRSES, PI: Weidong Li (U. Coventry)
- S2EUNET**  
2010-2014  
**Security, Services, Networking and performance of next generation IP-based multimedia wireless Networks.** Funding body: EU. Call reference: FP7-PEOPLE-2009-IRSES. PI: Prof. Frank Yong Li (UiA)

<b>CLEVER</b> 2011-2013	<b>Cloud-based Latin-American Environmental Virtual Observatory.</b> Funding body: CNRS-CAPES-ANII. Call reference: STIC-AmSud-2010, PI: Genoveva Vargas-Solar (CNRS)
<b>OPTIMACS</b> 2009-2012	<b>Service Composition Based Framework for Optimizing Queries.</b> Funding body: ANR. Call reference: ARPEGE-2008. PI: Genoveva Vargas-Solar (CNRS)
<b>E-CLOUDSS</b> 2008-2010	<b>Building E-Government Clouds Using Distributed Semantic Services.</b> Funding body: Microsoft Research. Call reference: LACCIR-RFP-2008. PIs: Regina Motz (UdelaR), Genoveva Vargas-Solar (CNRS), Martin Musicante (UFRN)
<b>RED-SHINE</b> 2009-2010	<b>Reliably and Semantically Integrating Web Information by Mashing-up Data Services.</b> Funding body: Grenoble INP. Call reference: BQR-2008/9. PI: Genoveva Vargas-Solar (CNRS)
<b>ORCHESTRA</b> 2007-2011	<b>Transactional Services Orchestration.</b> Funding body: ECOS-ANUIES. Call reference: ECOS-NORD-2017. PI: Christine Collet (Grenoble INP)
<b>E-GROV</b> 2007-2008	<b>Electronic Government Virtual Observatory.</b> Funding body: CONACyT-CUDI. Call reference: CUDI call 2007. PI: Jose Luis Zechinelli-Martini (UDLAP)

## Research Stays Abroad

2015-2016	<b>Nanjing University of Aeronautics and Astronautics • China</b> Period: 01.05 to 01.06.2015; 05.07 to 02.08.2015; 15.02 to 29.02.2016 ( <b>3 months</b> ). Funding: EU FP7-PEOPLE-IRSES CASES project  Visiting researcher College of Mechanical and Electrical Engineering, with Prof. Dunbing Tang. During the stay we develop TigerFlow: a Service Based Flow Shop Simulator for the industry 4.0 ( <a href="https://github.com/javieraespinosa/TigerFlow">https://github.com/javieraespinosa/TigerFlow</a> ).
2014	<b>Institute Polytechnic of Turin • Italy</b> Period: 25.05 to 24.06.2014 ( <b>1 month</b> ). Funding: EU FP7-PEOPLE-IRSES S2EUNET project.  Visiting researcher Internet Media Group (Computer Science department), were I worked in the analysis of big dataset of network data using Hadoop and produced teaching material for my course on Big Data Analytics.
2007-2008	<b>Laboratory of Informatics of Grenoble • France</b> Period: 01.09.07 to 31.07.08 ( <b>11 months</b> ). Funding: CONACyT mobility grant  HADAS group Intern, where I developed activities in the context of service-oriented data management, related to my master thesis.

## Scholarships and Grants

- **Azure Data Science Award** (\$20,000 dlls) for cloud experimentation associated to own research projects. Funding body: Microsoft Research. Period covered: 2016-2017 (12 months). **2016**
- **COST Trainee Grant** for the 2nd KEYSTONE Training School “Keyword search in Big Linked Data”, at CiTIUS, University of Santiago de Compostela, Spain. Funding body:

European Cooperation in Science and Technology (COST). Period covered: 18 to 22.07.2016.

- **CONACyT Postdoctoral Fellowship** for conducting research activities on data intensive architectures at the Barcelona Supercomputing Centre, Spain. Period covered: 2015-2017 (24 months). **2015**
- **CONACyT scholarship for PhD studies** at University of Grenoble, France. Period covered: 2009-2013 (48 months). **2009**
- **CONACyT Mobility Grant for scientific internship in France** (CONACyT beca-mixta) at Laboratory of Informatics of Grenoble, France. Period covered: 2007-2008 (11 months). **2007**
- **CONACyT scholarship for master studies** at Universidad de las Américas, Puebla, Mexico. Period covered: 2006-2008 (24 months) **2006**

## Languages

B=basic, G=good, P=proficiency

	Red	Written	Spoken	
<b>Spanish</b>	P	P	P	Mother tongue
<b>French</b>	P	P	G	TCF 2009: 490 pts, B2 level
<b>English</b>	G	G	G	TOEFL 2008: 575 pts

## Associations

- Association for Computing Machinery (ACM)
- Mexican Academy of Computer Science (AMEXCOMP)

## Licensed Software

- **HSTREAM: Big Stream Processing on IOT environments.**  
 Inventors: G. Vargas-Solar, J.A. Espinosa-Oviedo, C. Collet  
 License holder: Grenoble INP  
 Countries covered: Europe  
 Granted date: Procedure undergoing in the European Agency for the Protection of Programs (APP) [www.app.asso.fr](http://www.app.asso.fr)  
 Demo: <https://github.com/javieraspinosa/hstream>

## Publications

In computer science, some conferences are considered as important as indexed journals. When known, journal metrics and conference rankings are provided.

	Number	
Book chapters	2	

Peer-Reviewed Journal Articles	8	2 JCRs, 1 SJR Q1
Peer-Reviewed Conference Publications	7	3 CORE:A
Peer-Reviewed Workshops	5	
Articles without external evaluation	5	

### Summary of publications

#### Book Chapters

1. **From Data Harvesting to Modelling and Prediction for Making Urban Territories Smart.** G. Vargas-Solar, A.S. Castillo-Camporro, J.L. Zechinelli-Martini, J. A. Espinosa-Oviedo. *Innovative Applications in Smart Cities. Advances in Smart Cities book series.* Taylor & Francis. **InPress**
2. **Big continuous data: dealing with velocity by composing event streams.** G. Vargas-Solar, J. A. Espinosa-Oviedo, and J. L. Zechinelli-Martini. *Big Data Concepts, Theories and Applications*, pp. 1-27, Springer, 2016, ISBN: 978-3-319-27763-9, DOI: [10.1007/978-3-319-27763-9\\_1](https://doi.org/10.1007/978-3-319-27763-9_1). **2016**  
**Citations (Scopus, 2019): 1**
3. **Big Data Management: Challenges, Approaches, Tools and their limitations.** M. Adiba, J. C. Castrejón, J. A. Espinosa-Oviedo, G. Vargas-Solar, and J. L. Zechinelli-Martini. *Networking for Big Data*, pp. 43-55, CRC Press. ISBN: 978-1-4822-6349-7. **2015**

#### Peer-Reviewed Journal Articles

1. **Analyzing digital politics: Challenges and experiments in a dual perspective.** G. Castel, G. Vargas-Solar, J. Espinosa-Oviedo. *Open Journal in Information Systems Engineering*, 2020, vol. 1, n° 3, ISTE OpenScience, ISSN: 2634-1468., DOI: 10.21494/ISTE.OP.2020.0533. **2020**
2. **Using Autonomous Intelligence to Build a Smart Shop Floor.** D. Tang, K. Zheng, H. Zhang, Z. Zhang, Z. Sang, T. Zhang, J.-A. Espinosa-Oviedo, G. Vargas-Solar. *International Journal of Advanced Manufacturing Technology* vol. 94, issue 5-8, pp 1597–1606, 2018. ISSN:0268-3768. DOI: [10.1007/s00170-017-0459-y](https://doi.org/10.1007/s00170-017-0459-y). **2018**  
**Impact Factor (JCR, 2017): 2.601**  
**Impact Factor (CiteScore, 2018): 3.04**  
**Impact Factor (SJR, 2017): 0.994**  
**Quartile (SJR): Q1 Industrial and Manufacturing Eng.**  
**Citations (Springer, 2019): 5**
3.  **$\pi$ SOD-M: building SOC applications in the presence of non-functional requirements.** K. Belhajjame, V. de Castro, J. Espinosa-Oviedo, M. Musicante, U. Souza Da Costa, P. Souza Neto, G. Vargas-Solar and J.-L. Zechinelli-Martini. *International Journal of Web and Grid Services (IJWGS)*, vol.14 no.4, pp. 400-431, 2018. ISSN: 1741-1114. DOI:[10.1504/IJWGS.2018.095660](https://doi.org/10.1504/IJWGS.2018.095660)  
**Impact Factor (JCR, 2017): 1.071 (5-Year 0.853)**  
**Impact Factor (SJR, 2018): 0.21**  
**Quartile (SJR): Q3: Computer, Networks and Comm.**
4. **Big data management: what to keep from the past to face future challenges?** G. Vargas-Solar, J. L. Zechinelli-Martini, and J. A. Espinosa-Oviedo. *Data Science and Engineering*, vol. 2, no. 328, pp. 328-345, 2017. ISSN: 2364-1541. DOI: [10.1007/s41019-017-0043-3](https://doi.org/10.1007/s41019-017-0043-3) **2017**  
**Impact Factor/Quartile: Not available yet**  
**Citations (Springer, 2019): 8**

5. **Modelling Crowds in Urban Spaces.** I. Rudomín, G. Vargas-Solar, J. A. Espinosa-Oviedo, H. Pérez, and J. L. Zechinelli-Martini. *Computación y Sistemas*, vol. 21, no. 1, pp. 57–66, 2017. ISSN: 1405-5546. DOI:[10.13053/CyS-21-1-2584](https://doi.org/10.13053/CyS-21-1-2584).  
**Impact Factor (CiteScore, 2017):** 0.53  
**Impact Factor (SJR, 2017):** 0.226  
**Quartile (SJR):** Q3: Computer Science  
**Citations (Scopus, 2019):** 1
6. **Humanitarian Logistics and Cultural Diversity within Crowd Simulation.** C. A. Ochoa Zezzatti, I. Rudomin, G. Vargas-Solar, J. A. Espinosa-Oviedo, H. Pérez, and J.-L. Zechinelli-Martini. *Computación y Sistemas*, vol. 21, no. 1, pp. 7–21, 2017. ISSN: 1405-5546. DOI:[10.13053/CyS-21-1-2583](https://doi.org/10.13053/CyS-21-1-2583).  
**Impact Factor (CiteScore, 2017):** 0.53  
**Impact Factor (SJR, 2017):** 0.226  
**Quartile (SJR):** Q3: Computer Science  
**Citations (Scopus, 2019):** 4
7. **Optimizing Data Processing Service Compositions Using SLA's.** G. Vargas-Solar, J.-L. Zechinelli-Martini, and J.-A. Espinosa-Oviedo. *Polibits*, vol. 53, pp. 65–75, 2016, ISSN: 1870-9044. DOI: <http://dx.doi.org/10.17562/PB-53-7>.  
**CONACyT index (2019):** C  
**Quartile/area:** Ciencia y Tecnología, Computación **2016**
8. **Reliable Web Services Composition: An MDD Approach.** G. Vargas-Solar, V. de Castro, P. A. de Souza Neto, J. A. Espinosa-Oviedo, E. Marcos, M. A. Musicante, J.-L. Zechinelli-Martini, and C. Collet. *Polibits*, vol. 49, no. 1, pp. 17-27, 2014. ISSN: 1870-9044. **2014**  
**CONACyT index (2019):** C  
**Quartile/area:** Ciencia y Tecnología, Computación

#### Peer-Reviewed Conference Publications

- \* 1. (Demo) **Demonstrating data collections curation and exploration with CURARE.** **2019**  
G. Vargas-Solar, G. Kemp, I. Hernandez Gallegos, J.-A. Espinosa-Oviedo, C. Ferrera da Silva and P. Ghodous. In Proc. *22nd Int. Conf. on Extending Database Technology (EDBT'19): Demo session*, Lisbon, Portugal, March 26-29, 2019, pp. 598-601, OpenProceedings.org, 2019. ISBN: 978-3-89318-081-3. DOI: [10.5441/002/edbt.2019.65](https://doi.org/10.5441/002/edbt.2019.65).  
**Conference Rank (2019):** CORE:A, LiveSHINE:A, GGS:A MicrosoftAcademic:A+
2. (Poster) **Automating systematic mappings, adding quality to quantity.** R. Motz, G. Vargas-Solar, U. Souza Da Costa, J. A. Espinosa-Oviedo, Martin A. Musicante, J. L. Zechinelli-Martini, A. Pardo. In Proc. *39th Int. Conf. on Software Engineering (ICSE'17): Poster Track "Empirical Studies"*, Buenos Aires, Argentina, 20-28 May 2017, pp. 167-168, ISBN: 978-1-5386-1589-8, DOI: <https://doi.org/10.1109/ICSE-C.2017.111> **2017**
3. **Using Autonomous Intelligence to Build a Smart Shop Floor.** D. Tang, K. Zheng, H. Zhang, Z. Sang, Z. Zhang, C. Xu, J. A. Espinosa-Oviedo, G. Vargas- Solar, and J.-L. Zechinelli-Martini. In Proc. *9th Int. Conf. on Digital Enterprise Technology (DET'16)*, vol. 56, pp. 354–359, Elsevier, ISSN: 2212-8271, DOI: <https://doi.org/10.1016/j.procir.2016.10.039>  
**Citations (Scopus, 2019):** 1 **2016**
4. **Comparing Electoral Campaigns by Analysing Online Data.** J. A. Espinosa-Oviedo, G. Vargas-Solar, V. Alexandrov, and G. Castel. In Proc. *Int. Conf. on Computational Science (ICCS'16)*, 6-8 June 2016, San Diego, California, USA, vol. 80, Elsevier, pp. 1865–1874. ISSN: 1877-0509. DOI: [10.1016/j.procs.2016.05.480](https://doi.org/10.1016/j.procs.2016.05.480)  
**Conference Rank (2019):** CORE:A, LiveSHINE:B, GGS: B  
**Citations (Scopus, 2019):** 1

- \* 5. (Poster) **Policy Driven Services Coordination for Building Social Networks Based Applications.** J. A. Espinosa-Oviedo, G. Vargas-Solar, J. L. Zechinelli-Martini, and C. Collet. In *Proc. Int. Conf. on Services Computing (SCC'11): Work in Progress Track*, 4-9 July 2011, Washington, DC, USA, IEEE, pp. 753-754. ISBN: 978-1-4577-0863-3, DOI: <https://doi.org/10.1109/SCC.2011.40>  
**Conference Rank (2019):** CORE:A, LiveSHINE:A, GGS:A, MicrosoftAcademic:B  
**Citations (Scopus, 2019):** 2
- \* 6. (Poster) **Non-functional properties and services coordination using contracts.** J. A. Espinosa-Oviedo, G. Vargas-Solar, J.-L. Zechinelli-Martini, and C. Collet. In *Proc. 13th Int. Database Engineering & Applications Symp. (IDEAS'19)*, 16-18 Sept. 2009, Cetraro, Italy, ACM, pp. 307-310. ISBN: 978-1-60558-402-7. DOI: <https://doi.org/10.1145/1620432.1620467>  
**Conference Rank (2019):** CORE:B, LiveSHINE:B, GGS:B, MicrosoftAcademic:B-  
**Citations (ACM):** 1
- 7. **Securely coordinating services using contracts.** J. A. Espinosa-Oviedo, G. Vargas-Solar, J. L. Zechinelli-Martini, and C. Collet. In *Proc. IEEE Mexican Int. Conf. on Computer Science (ENC'09)*, Mexico City, Mexico, 21-25 Sept. 2009, pp. 307-314, ISBN: 978-1-4244-5258-3, DOI: <https://doi.org/10.1109/ENC.2009.20>  
**Conference Rank (2019):** CORE:C, MicrosoftAcademic:C
- 8. **Construire des applications fiables à base de services mobiles.** A. Portilla, T. Hanh, J.A. Espinosa-Oviedo, C. Collet, G. Vargas-Solar. In *Proc. of the 4th French-speaking conference on Mobility and ubiquity computing (UbiMob'08)*. Saint Malo, France, May 28-30, 2008, pp. 57-64, ACM, 2008. ISBN: 978-1-59593-980-7. DOI: [10.1145/1376971.1376983](https://doi.org/10.1145/1376971.1376983).

#### Peer-Reviewed Workshop Publications

- \* 1. **Measuring the Quality of Life in “La Condesa”: Activating Mexico City Neighbourhood Economy while Maximising Well-being.** A.S. Castillo-Camporro, J.L. Zechinelli-Martini, J.A. Espinosa-Oviedo. In *Service-Oriented Computing – ICSOC 2019 Workshops: WESOACS, ASOCA, ISYCC, TBCE, and STRAPS*, Toulouse, France, October 28-31, 2019, pp. 213–223, LNCS, Springer, 2020. DOI: [https://doi.org/10.1007/978-3-030-45989-5\\_17](https://doi.org/10.1007/978-3-030-45989-5_17)
- 2. **Computing Query Sets for Better Exploring Raw Data Collections.** G. Vargas-Solar, J.-L. Zechinelli-Martini and J.-A. Espinosa-Oviedo. In *Proc. 13th Int. Workshop on Semantic and Social Media Adaptation and Personalization (SMAP'18)*, Zaragoza, Spain, 6-7 Sept., 2018, IEEE, pp. 99-104. ISBN: 978-1-5386-8225-8. DOI: <https://doi.org/10.1109/SMAP.2018.8501871>  
**Conference Rank (2019):** LiveSHINE:C
- 3. **Correlating digital footprints for discovering social connections in crowds.** J. Espinosa-Oviedo, G. Vargas-Solar, V. Alexandrov, J. Zechinelli-Martini. In *Proc. 1st Int. workshop on Data Analytics solutions for Real-Life Applications (DARLI-AP'17) in conjunction with the 3rd Int. Conf. Smart Data*, Exeter, U.K., 21-23 Jun, 2017, IEEE, pp. 1130-1135, 2018, ISBN: 978-1-5386-3066-2 DOI: <https://doi.org/10.1109/iThings-GreenCom-CPSCoM-SmartData.2017.173>
- 4. **Unmarrying non-functional properties and services coordination using contracts.** J. A. Espinosa-Oviedo, G. Vargas-Solar, J. L. Zechinelli-Martini, and C. Collet. In *Proc. 1st ACM Int. Workshop on Model Driven Service Eng. and Data Quality and Security (MoSE+DQS'09)*, Hong Kong, China, 6 Nov 2009, ACM, pp. 61-64, ISBN: 978-1-60558-816-2, DOI: <https://doi.org/10.1145/1651415.1651427>
- 5. **Experiences in building reliable mobile services based applications.** Alberto Portilla, Hanh Tan, Javier-Alfonso Espinosa-Oviedo. In *Proc. 1st Int. Workshop on Data and Services Management in Mobile Environments (DS2ME'08)* in conjunction

with the *24th Int. Conf. on Data Engineering (ICDE'08)*, April 7-12, 2008, Cancun, Mexico, IEEE, pp. 121-128. ISBN: 978-1-4244-2161-9, DOI: [10.1109/ICDEW.2008.4498303](https://doi.org/10.1109/ICDEW.2008.4498303)

## Articles without External Evaluation

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1. (Abstract) **Building dynamic cards for monitoring building environments behavior and reconstruction in disasters: A data centric perspective.** G. Vargas-Solar, A. Koutamanis, J.A. Espinosa-Oviedo. *10th Conf. Int. Society for Integrated Disaster Risk Management (IDRiM'19)*, Nice, France, 16-18th October 2019.

2019
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2. **Supporting Real-Time Visual Analytics in Neuroscience.** E. Arriaga-Varela, J.A. Espinosa-Oviedo, G. Vargas-Solar, R. Dávila Pérez. In Book of abstracts *4th BSC Severo Ochoa Doctoral Symposium*, Barcelona, Spain, 2-4th May 2017, Barcelona Supercomputing Centre, pp. 71–72.

2017
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3. **Comparing electoral campaigns by analysing online data.** J.A. Espinosa-Oviedo, G. Vargas-Solar, V. Alexandrov, G. Castel. In Book of abstracts *3rd BSC International Doctoral Symposium*, Barcelona, Spain, 4-6th May 2016, Barcelona Supercomputing Centre, pp. 61-62.

2016
- 4. **Crowd simulation and visualization.** H. Perez, I. Rudomin, E. Ayguadé Parra, B. Hernandez, J. A. Espinosa-Oviedo, and G. Vargas-Solar. In Book of abstracts *3rd BSC International Doctoral Symposium*, Barcelona, Spain, 4-6th May 2016, Barcelona Supercomputing Centre, pp. 98–100
- 5. **Efficient and versatile data analytics for deep networks.** D. Garcia-Gasulla, J. Moreno-Vázquez, J.A. Espinosa-Oviedo, J. Conejero, G. Vargas-Solar, R.M. Badia, U. Cortés, T. Suzumura. In Book of abstracts *3rd BSC International Doctoral Symposium*, Barcelona, Spain, 4-6th May 2016, Barcelona Supercomputing Centre, pp. 72-73.

\* Presented in conference

## Teaching Experience

All teaching material is available at <http://espinosa-oviedo.com/teaching>.

Type	Institution	Country	Total Hours
Master	UPMF	France	66
Master	UdelAR	Uruguay	45
Master	Grenoble INP	France	28
Undergraduate	UPMF	France	6
Undergraduate	IUT1 Grenoble	France	20
Tutorial	BSC	Spain	19
Tutorial	ISUM'18 Conference	Mexico	12
Tutorial	2nd FR-BR School on Smart Cities	Brazil	3

*Summary. Total volume of teaching activities per institutions*

## Courses

Institution	Course	Program	Year	Students	Hours
Barcelona Supercomputing Centre • Spain	Big Data Visualization	Big Data Analytics PRACE Advance Training program	2018	45	5P
			2017	47	7P
			2016	23	4P
	Big Data Management		2017	41	8P
			2016	27	8P



Grenoble INP • France		Master Electrical engineering for Smart Grids and Buildings, ENSE3 <sup>1</sup>	2015	32	8P
		3rd year engineering school ENSIMAG <sup>2</sup> . Big Data track	2014	20	6P
			2013	42	6P
Udelar • Uruguay	Big Data Analytics and Visualization	Master Pedeciba-Informática, Computer Science Institute	2016	7	10T+10P
	Big Data Analytics		2015	13	10T+10P
			2014	27	15P
IUT1 Grenoble • France	Development of Mobile and Web Service Applications	Licence Professionnelle Réseaux et Télécommunications. Spécialité Services Mobiles et Interface Nomad	2015	12	10T+10P
UDLAP • Mexico	Big Data Visualization	Supercomputing Education Program	2016	15	4P
UPMF • France	Languages and Technologies of the Web 2	Master 1, IC2A <sup>3</sup> program, WIC <sup>4</sup> track	2015	32	6T+12P
			2014	30	6T+12P
	Introduction to Web Technologies	Licence 3, MIASHS <sup>5</sup> program	2014	6	4T+2P
	Digital Multimedia	Master 2, IC2A program, WIC track	2013	15	12T+12P

T/P = Theory/Practice

## Tutorials (single edition)

Course	Event	Year	Students	Hours
Data Processing and Querying at Scale using Big Data Analytics Stacks	9th International Supercomputing Conference in Mexico (ISUM'18), 3-6th March 2018, Merida, Mexico.	2018	7	12P
Visualizing Big Urban Data	2nd French-Brazilian School on Big Data & Smart Cities. 8-10th Nov. 2017, Natal, Brazil.	2017	30	3P
Scientific Visualization of Big Data	3rd BSC Int. Doctoral Symposium, 4-6th May 2016, Barcelona, Spain	2016	10	3P

## Students Mentoring

	PhD	Master	Undergraduate
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<sup>1</sup> École Nationale Supérieure de l'Énergie, l'Eau et l'Environnement

<sup>2</sup> École Nationale Supérieure d'Informatique et Mathématiques Appliquées

<sup>3</sup> Ingénierie de la Cognition, de la Création et des Apprentissages

<sup>4</sup> Web, Informatique et Connaissance

<sup>5</sup> Mathématiques et Informatique Appliquées aux Sciences Humaines et Sociales

Students	1	8	9
Implication	50%	2 x 70% 2 x 45% 3 x 30% 1 x 50%	9 x 70%

## PhD

- (Undergoing) MEHRDAD FAROKHNEJAD. **Defining human guided data collections exploration for modelling complex systems: supporting urban spaces design**. University of Grenoble-Alpes. Mentors: G. Vargas-Solar, J. Espinosa (**involvement 50%**). Funded by the National Council of Science and Technology of Iran.

## Master

- (Undergoing) HUGO SANTILLAN VILICAÑA. **Integration of medical data in multi-cloud environments guided by SLAs**. Universidad Autónoma de Guadalajara, 2019. Mentors: G. Vargas-Solar, J. Espinosa (**involvement 50%**).
- IRIS RUYSCHE. **Paving the way for autonomous cars: Current projects and challenges in the Netherlands**. Delft University of Technology, 2019. Mentors: A. Ersoy, J. Espinosa (**involved 70%**).
- MAYSAA KHALIL. **GREENHOME: Household Energy Consumption & Co2 Footprint Metering Environment**. ENSE3-Grenoble INP. Supervisors: G. Vargas-Solar, R. Caire, J. Espinosa (**involvement 30%**).
- IRVING HERNANDEZ GALLEGOS. **Data collections curation and exploration with CURARE**. Universidad Autónoma de Guadalajara, 2018. Mentors: G. Vargas-Solar, J. Espinosa (**involvement 30%**).
- SANTIAGO RUÍZ ANGULO. **Analysis of climate change in LATAM by processing historical newspapers**, Universidad Autónoma de Guadalajara, 2017. Mentors: R. Davila, G. Vargas-Solar, J. Espinosa (**involvement 45%**). <https://github.com/javieraespinosa/ipgh-lab>
- ENRIQUE ARRIAGA VARELA. **Discovering patterns from streams for supporting real-time decision-making during neuroscience experiments**. Universidad Autónoma de Guadalajara, 2017. Mentors: R. Davila, G. Vargas-Solar, J. Espinosa (**involvement 45%**). <https://github.com/javieraespinosa/hstream>
- PEDROPABLO LOPEZ AMAYA. **Collection and storage of transport data** (Acquisition et stockage des données du transport), Université Claude Bernard Lyon 1, 2015. Mentors: F. Da Silva, P. Ghodous, G. Vargas-Solar, J. Espinosa (**involvement 30%**).
- XIAOHU TANG, **TigerFlow: a smart Shop Floor simulator for the Industry 4.0**. University of Nanjing, China. Mentors: G. Vargas-Solar, J. Espinosa (**involvement 70%**). <https://github.com/javieraespinosa/TigerFlow>

## Undergraduate

- CLÉMENT QUÉRÉ. **Analyzing Gender Gap in Stem**. IUT Lannion, 2019. Mentors: L. D'Orazio, K. Gibert, G. Vargas-Solar, J. Espinosa (**involvement 50%**).
- HÉLÈNE BESANÇON, SYLVAIN BOUVET, CLÉA BROSSARD, THIBAUT FOURRIER. **Collection and storage of online data produced during the 2014 European Elections**. Projet de spécialité, ENSIMAG, Grenoble INP, 2014. Mentors: G. Vargas-Solar, J. Espinosa (**involvement 70%**).
- OCEANE DE LOITIERE, BASTIEN DROCOURT, MANON LUCAS. **System for exploring the 2014 European Elections collected data**. Projet de spécialité, ENSIMAG, Grenoble INP, 2014. Mentors: G. Vargas-Solar, J. Espinosa (**involvement 70%**).
- VAELO TORREGROSA BRAULIO. **Building a mashup environment for integrating data services**. ENSIMAG, Grenoble INP, 2011. Mentors: G. Vargas-Solar, J. Espinosa (**involvement 70%**).

## Professional Activity

- Program Committee**
- **AICCSA 2020:** 17<sup>th</sup> ACS/IEEE Int. Conf. on Computer Systems and Applications (Track 9: Data Science; Track 11: NLP and Applications)
  - **STRAPS 2020:** 2<sup>nd</sup> Workshop on Smart Data Integration and Processing on Service based environments (in conjunction with ICSSOC 2020)
  - **CoopIS 2019:** 27<sup>th</sup> Int. Conf. on Cooperative Information Systems
  - **DSC 2019:** 5<sup>th</sup> IEEE Int. Workshop for Data Science and Computing (in conjunction with AICCSA 2019)
  - **DARLI-AP 2019 & 2020:** 3<sup>rd</sup> and 4<sup>th</sup> Data Analytics solutions for Real-Life Applications (in conjunction with EDBT/ICDT 2019 & 2020)
- External Reviewer**
- Journals**
- Computer Networks journal (2020)
  - Future Generation Computer Systems (2020, 2019)
  - Transactions on Emerging Topics in Computing (2019)
  - Information Systems Frontiers (2019)
  - Computing (2018, 2019)
  - Computación y Sistemas (2016, 2018)
  - Data in Brief (2017)
- Conferences**
- AICCSA (2016, 2019)
  - ADBIS DaS workshop (2017)
  - ICCS (2017)
  - MICAI (2016)
  - IKC KEYSTONE (2016)
  - ENC (2010, 2009)
- Conference Organization**
- *BDA Summer School "Masses de données distribuées"*
    - 6<sup>th</sup> ed. 7-12 June 2020, Corse, France
    - 5<sup>th</sup> ed. 17-22 June 2018, Aussois, France
  - *Franco-Brazilian Spring School on Big Data and Smart Cities*
    - 1<sup>st</sup> ed. 7-10th April 2015, Grenoble, France
    - 2<sup>nd</sup> ed. 8-10th November 2017, Natal, Brazil
  - *EDBT Summer School 2013 on Big, Linked and Open Data*, 1<sup>st</sup>-6<sup>th</sup> September 2013, Aussois, France.
- Other Services**
- Project manager, LAFMIA lab (since 2015)
  - Main organizer and chairperson, LDE BOLD Cities Talks (2018-2019)
  - Main organizer, Collaborative Workshop UAG-UdeG and BSC (2017)
  - Chair, 4th BSC Doctoral Symposium, 2017
  - Main organizer, Seminar on Web Service, LIG-Sinergy (2010)