



# Manuel García-Quismondo

*Computational Biologist at OneThree Biotech*

## Contact information

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Google Scholar **scholar.google.com/citations?user=pa02r4AAAAAJ**.  
Linkedin **www.linkedin.com/in/manuelgarciaquismondo/**.

## Current position

04/2020–  
present **Computational Biologist**, *OneThree Biotech*, New York, NY, USA.

I am looking for a position where I can combine my expertise in Bioinformatics, Software and Hardware Engineering, Machine and Deep Learning, and Data Science to solve real-world problems.

## Previous positions

02/2018–  
04/2020 **Senior Data Analyst**, *Icahn School of Medicine at Mouny Sinai*, New York, NY, USA.  
02/2017–  
02/2018 **Postdoctoral Research Associate**, *Rensselaer Polytechnic Institute*, Troy, NY, USA.  
01/2017–  
02/2017 **Research Fellow**, *Tufts University*, Medford, MA, USA.  
10/2015–  
12/2016 **Postdoctoral Associate**, *Smithsonian Institution and Rutgers University*, Washington, DC, USA and New Brunswick, NJ, USA.

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03/2014– **Postdoctoral Fellow**, *University of Minnesota*, St. Paul, MN, USA.  
09/2015

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## Education

- 07/2011– **PhD in Computer Science**, *Higher Technical School of Computer Engineering*.  
01/2014 *University of Seville*, Seville, Spain.
- 09/2009– **MEng in Logic, Computing and Artificial Intelligence**, *Higher Technical School of Computer Engineering*.  
07/2011 *University of Seville*, Seville, Spain.
- 09/2007– **BEng in Computer Science**, *Higher Technical School of Computer Engineering*.  
07/2009 *University of Seville*, Seville, Spain.
- 09/2003– **BEng in Electrical and Computer Engineering**, *Higher Technical School of Computer Engineering*.  
08/2007 *University of Seville*, Seville, Spain.

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## Skills

### Programming languages

- Python, R, SQL, C/C++, CUDA/C++, Java, JavaScript, Linux Bash, FORTRAN, Perl, MATLAB

### Software Technologies

- Tensorflow, Keras, Scikit-Learn, React.js, Python Flask, Weka, Jupyter notebooks, PostgreSQL, Boost C++

### Systems

- Linux, AWS, Docker, Git

### Scientific Skills

- Machine Learning, Bioinformatics, Biostatistics, Image Processing and Deep Learning, Mathematical and Computational Modeling, Parallel Computing, GPU Computing, Database Development

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## Software Projects

**Machine Learning Model for the Detection of Synthetic Lethal Genetic Interactions**, *Machine learning classification model for the detection of synthetic lethal genetic interactions, with the end of discovering potential therapeutic drug targets based on synthetic lethality*, Implemented in Python, .

**Machine Learning Model for the Prediction of Drug Target Toxicity**, *Machine learning classification model for the detection of drug target toxicity to ensure safety in drug development*, Implemented in Python, .

**Single-cell RNA-seq data processing**, *Pipeline for processing, analysis and visualization of single-cell RNA-seq data*, Implemented in Python using 10x Cellranger and deployed in AWS.

**MIBI nuclear segmentation**, *Pipeline for segmentation of cell nuclei in MIBI images using Deep Learning*, Implemented in Python using Tensorflow, Keras and Jupyter Notebooks.

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**HIMC DB**, *Implementation and management of a full-stack LIMS database application for bio-banking and management of biological assay data*, Implemented in PostgreSQL for the data model, Python (Flask) for the back-end and React.js for the front-end, and deployed in AWS.

**Lake George Food Web Model**, *A food web model on the aquatic species of Lake George, NY, USA in collaboration with the IBM Thomas J. Watson Research Center*, Implemented in C++, <https://github.com/manugarciaquismondo/foodwebmodel>.

**Wax Lake Delta Model**, *A model on fisheries dynamics on the Wax Lake Delta, LA, USA*, Implemented in C++ and FORTRAN, <https://github.com/manugarciaquismondo/DeltaModel>.

**P-Lingua**, *A Programming Language for Membrane Computing*, Implemented in Java, <http://www.p-lingua.org/>.

**PMCGPU**, *Parallel simulators for Membrane Computing on the GPU*, Implemented in C/C++ and CUDA/C++, <https://sourceforge.net/projects/pmcgpu/>.

**pLinguaPlugin**, *A Programming Environment in Eclipse for Membrane Computing*, Implemented in Java, <http://www.p-lingua.org/wiki/index.php/PLinguaPlugin>.

**MeCoSim**, *A Java-Based General-Purpose Application to Model, Design, Simulate, Analyze and Verify Different Types of P system Models*, Implemented in Java, <http://www.p-lingua.org/mecosim>.

**MeCoGUI**, *A Java-Based Graphical User Interface for Simulation in Membrane Computing*, Implemented in Java, <http://www.p-lingua.org/wiki/index.php/MeCoGUI>.

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## References

[J. Michael Reed](#)

Professor

*Tufts University*

[Michael.Reed@tufts.edu](mailto:Michael.Reed@tufts.edu)

[Frances S. Chew](#)

Professor

*Tufts University*

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Professor

*University of Seville*

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[Anupama Reddy](#)

Adjunct Faculty Member

*Stony Brook University*

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## Publications

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🔗 <https://scholar.google.com/citations?user=pa02r4AAAAAJ>

## Conference Contributions

- 2022 **M. García-Quismondo**, M. Parikh, N. S. Madhukar, C. Gilvary, “\*Poster: \*Predicting target driven toxicity for small molecule inhibitors to aid in drug development,” in *Proceedings of the American Association for Cancer Research (AACR 2022)*, New Orleans, Louisiana, USA.
- M. Parikh, **M. García-Quismondo**, N. S. Madhukar, C. Gilvary, “\*Poster: \*Identification of Synthetic Lethal Gene Interactions to Discover Novel Cancer Vulnerabilities And Guide Drug Development,” in *Proceedings of the American Association for Cancer Research (AACR 2022)*, New Orleans, Louisiana, USA.
- 2021 **M. García-Quismondo**, O. Elemento, N. S. Madhukar, C. Gilvary, “\*Poster: \*Identifying genetic interactions of diverse origins to inform cancer drug discovery,” in *Proceedings of the American Association for Cancer Research (AACR 2021)*.
- 2014 **M. García-Quismondo**, M. A. Martínez-del-Amor, M. J. Pérez-Jiménez, “\*Probabilistic Guarded P Systems, A formal Definition,” in *Twelfth Brainstorming Week on Membrane Computing (BWMC2014)*, Fénix Editora, pp. 183–206, ISBN: 978-84-940056-4-0. [Online]. Available: [http://www.gcn.us.es/12bwmc\\_proceedings](http://www.gcn.us.es/12bwmc_proceedings).
- M. García-Quismondo**, M. A. Martínez-del-Amor, M. J. Pérez-Jiménez, “\*Probabilistic Guarded P systems, a New Formal Modelling Framework,” in *15th Conference on Membrane Computing, pre-proceedings*, Opava, Czech Republic, pp. 169–190, ISBN: 978-80-7510-036-8. [Online]. Available: [http://cmc15.slu.cz/wp-content/uploads/2014/01/cmc15\\_proceedings.pdf](http://cmc15.slu.cz/wp-content/uploads/2014/01/cmc15_proceedings.pdf).
- 2013 M. Gheorghe, F. Ipate, C. Dragomir, “\*Kernel P Systems - Version I,” in *Eleventh Brainstorming Week on Membrane Computing (11BWMC)*, Sevilla, España: Fénix Editora, pp. 97–124, ISBN: 978-84-940691-9-2. [Online]. Available: [http://www.gcn.us.es/files/11bwmc/097\\_gheorghe\\_ipate.pdf](http://www.gcn.us.es/files/11bwmc/097_gheorghe_ipate.pdf).
- L. Valencia-Cabrera, **M. García-Quismondo**, M. J. Pérez-Jiménez, Y. Su, H. Yu, L. Pan, “\*Analysing Gene Networks with PDP Systems. Arabidopsis thaliana, a Case Study,” in *Eleventh Brainstorming Week on Membrane Computing (11BWMC)*, Sevilla, España: Fénix Editora, pp. 257–272, ISBN: 978-84-940691-9-2. [Online]. Available: [http://www.gcn.us.es/files/11bwmc/257\\_valencia\\_cabrera.pdf](http://www.gcn.us.es/files/11bwmc/257_valencia_cabrera.pdf).
- 2012 **M. García-Quismondo**, A. B. Pavel, M. J. Pérez-Jiménez, “\*Simulating large-scale ENPS models by means of GPU,” in *Tenth Brainstorming Week on Membrane Computing*, vol. I, Seville, Spain: Fénix Editora, pp. 137–152. [Online]. Available: [http://www.gcn.us.es/10BWMC/10BWMCvolI/papers/Simulating\\_complex\\_ENPS\\_models\\_by\\_means\\_of\\_GPU\\_complete.pdf](http://www.gcn.us.es/10BWMC/10BWMCvolI/papers/Simulating_complex_ENPS_models_by_means_of_GPU_complete.pdf).
- M. García-Quismondo**, L. Valencia-Cabrera, Y. Su, M. J. Pérez-Jiménez, L. Pan, H. Yu, “\*Modeling logic gene networks by means of probabilistic dynamic P systems,” in *Asian Conference on Membrane Computing*, L. Pan, G. Paun, T. Song, Eds., Wuhan, China, pp. 30–60.

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M. A. Martínez-del-Amor, I. Pérez-Hurtado, **M. García-Quismondo**, “\*DCBA: \*Simulating population dynamics P systems with proportional object distribution,” in *13th International Conference on Membrane Computing (CMC13)*, Budapest, Hungary, pp. 291–310, ISBN: 978-963-311-372-1. [Online]. Available: <http://www.sztaki.hu/tcs/proba/cmc13/CMC13-proceedings.pdf>.

M. A. Martínez-del-Amor, I. Pérez-Hurtado, **M. García-Quismondo**, “\*DCBA: \*Simulating Population Dynamics P Systems with Proportional Object Distribution,” in *Tenth Brainstorming Week on Membrane Computing*, vol. II, Seville, Spain: Fénix Editora, pp. 27–56. [Online]. Available: <http://www.gcn.us.es/10BWMC/10BWMCvolIII/papers/dcba.pdf>.

2011 **M. García-Quismondo**, L. F. Macías-Ramos, M. J. Pérez-Jiménez, “\*Implementing ENPS by means of GPUs for AI applications,” in *Interdisciplinary Aspects of Artificial Intelligence*, Pilsen, Czech Republic: University of West Bohemia, Pilsen, pp. 27–33. [Online]. Available: [http://beyondai.zcu.cz/files/BAI2011\\_proceedings.pdf](http://beyondai.zcu.cz/files/BAI2011_proceedings.pdf).

L. F. Macías-Ramos, I. Pérez-Hurtado, **M. García-Quismondo**, L. Valencia-Cabrera, M. J. Pérez-Jiménez, A. Riscos-Núñez, “\*A P-Lingua based Simulator for Spiking Neural P Systems,” in *Proceedings of the 12th International Conference on Membrane Computing (CMC12)*, Fontainebleau, France, pp. 323–346. [Online]. Available: <http://cmc12.lacl.fr/cmc12proceedings.pdf>.

2010 D. Díaz-Pernil, C. M. Fernández-Márquez, **M. García-Quismondo**, M. A. Gutiérrez-Naranjo, M. A. Martínez-del-Amor, “\*A Cellular Sudoku Solver,” in *Eighth Brainstorming Week on Membrane Computing*, Sevilla, Spain: Fénix Editora, pp. 77–88, ISBN: 978-84-614-2357-6. [Online]. Available: <http://www.gcn.us.es/8BWMC/volume/06sudokuMiguel.pdf>.

D. Díaz-Pernil, C. M. Fernández-Márquez, **M. García-Quismondo**, M. A. Gutiérrez-Naranjo, M. A. Martínez-del-Amor, “\*Solving Sudoku with Membrane Computing,” in *2010 IEEE Fifth International Conference on Bio-Inspired Computing: Theories and Applications BIC-TA*, K. Li, Z. Tang, R. Li, A. Nagar, R. Thamburaj, Eds., vol. I, Changsha, China: IEEE, Inc., pp. 610–615, ISBN: 978-1-4244-6438-8. [Online]. Available: [http://www.ieee.org/conferences\\_events/conferences/conferencedetails/index.html?Conf\\_ID=16823](http://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=16823).

**M. García-Quismondo**, M. A. Gutiérrez-Naranjo, D. Ramírez-Martínez, “\*How Does a P System Sound?” In *Eighth Brainstorming Week on Membrane Computing*, Sevilla, Spain: Fénix Editora, pp. 123–132, ISBN: 978-84-614-2357-6. [Online]. Available: <http://www.gcn.us.es/8BWMC/volume/10music.pdf>.

2009 **M. García-Quismondo**, R. Gutiérrez-Escudero, I. Pérez-Hurtado, M. J. Pérez-Jiménez, “\*P-Lingua 2.0: \*New features and first applications,” in *7th Brainstorming Week on Membrane Computing*, vol. I, Sevilla, España: Fénix Editora, pp. 141–168, ISBN: 978-84-613-2837-6. [Online]. Available: [http://www.gcn.us.es/7BWMC/volume/18\\_plingua\\_2\\_0.pdf](http://www.gcn.us.es/7BWMC/volume/18_plingua_2_0.pdf).

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**M. García-Quismondo**, R. Gutiérrez-Escudero, I. Pérez-Hurtado, M. J. Pérez-Jiménez, A. Riscos-Núñez, “\*An overview of P-lingua 2.0,” in *10th Workshop on Membrane Computing*, Marpapublicidad, pp. 240–264. [Online]. Available: <http://www.gcn.us.es/?q=procwmc10>.

**M. García-Quismondo**, B. M. Henley, I. Pérez-Hurtado, A. Riscos-Núñez, “\*A first attempt to model notch signalling by means of P systems,” in *10th Workshop on Membrane Computing*, G. Paun, M. J. Pérez-Jiménez, A. Riscos-Núñez, Eds., Curtea de Arges, Rumania: Marpapublicidad, pp. 265–268. [Online]. Available: <http://www.gcn.us.es/files/265notch.pdf>.

#### Journal Articles

2021 **M. García-Quismondo**, W. D. Hintz, M. S. Schuler, R. A. Relyea, “\*Modeling Diel Vertical Migration with Membrane Computing,” *Journal of Membrane Computing*, vol. 3, pp. 35–50, ISSN: 2523-8906. DOI: 10.1007/s41965-020-00038-y.

2018 **M. García-Quismondo**, C. Graciani, A. Riscos-Núñez, “\*Membrane Computing as a Modelling Tool: \*Looking Back and Forward from Sevilla,” *Lecture Notes in Computer Science*, vol. 11270, C. Graciani, A. Riscos-Núñez, G. Păun, G. Rozenberg, A. Salomaa, Eds., pp. 114–129. DOI: 10.1007/978-3-030-00265-7\_10. [Online]. Available: [https://doi.org/10.1007/978-3-030-00265-7\\_10](https://doi.org/10.1007/978-3-030-00265-7_10).

**M. García-Quismondo**, I. C. T. Nisbet, C. Mostello, J. M. Reed, “\*Modeling Population Dynamics of Roseate Terns (*Sterna dougallii*) in the Northwest Atlantic Ocean,” *Ecological Modelling*, vol. 368, pp. 298–311.

2017 **M. García-Quismondo**, M. Levin, D. Lobo, “\*Modeling regenerative processes with membrane computing,” *Information Sciences*, vol. 381, pp. 229–249, ISSN: 0020-0255. [Online]. Available: <http://www.sciencedirect.com/science/article/pii/S0020025516318187>.

**M. García-Quismondo**, J. M. Reed, F. S. Chew, M. A. Martínez-del-Amor, M. J. Pérez-Jiménez, “\*Evolutionary response of a native butterfly to concurrent plant invasions: \*simulation of population dynamics,” *Ecological Modelling*, vol. 360, pp. 410–424, ISSN: 0304-3800. DOI: 10.1016/j.ecolmodel.2017.06.030.

2015 M. A. Martínez-del-Amor, **M. García-Quismondo**, L. F. Macías-Ramos, L. Valencia-Cabrera, A. Riscos-Núñez, M. J. Pérez-Jiménez, “\*Simulating P Systems on GPU Devices: \*A Survey,” *Fundamenta Informaticae*, vol. 136, pp. 269–284, ISSN: 0169-2968. DOI: 10.3233/FI-2015-1157. [Online]. Available: <http://iospress.metapress.com/content/101684hh3785365u/>.

2014 **M. García-Quismondo**, M. A. Martínez-del-Amor, M. J. Pérez-Jiménez, “\*Probabilistic Guarded P Systems, A New Formal Modelling Framework,” *Lecture Notes in Computer Science*, vol. 8961, pp. 194–214, ISSN: 0302-9743. [Online]. Available: [http://link.springer.com/chapter/10.1007/978-3-319-14370-5\\_12](http://link.springer.com/chapter/10.1007/978-3-319-14370-5_12).

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2013 M. Gheorghe, F. Ipate, R. Lefticaru, “\*3-COL problem modelling using simple Kernel P systems,” *International Journal of Computer Mathematics*, vol. 90, pp. 816–830, ISSN: 0020-7160. DOI: 10.1080/00207160.2012.743712. [Online]. Available: <http://dx.doi.org/10.1080/00207160.2012.743712>.

M. A. Martínez-del-Amor, I. Pérez-Hurtado, **M. García-Quismondo**, “\*DCBA: \*Simulating population dynamics P systems with proportional objects distribution,” *Lecture Notes in Computer Science*, E. Csuhaj-Varjú, M. Gheorghe, G. Rozenberg, A. Salomaa, G. Vaszil, Eds., pp. 257–276, ISSN: 0302-9743. DOI: 10.1007/978-3-642-36751-9\_18. [Online]. Available: [http://link.springer.com/chapter/10.1007/978-3-642-36751-9\\_18](http://link.springer.com/chapter/10.1007/978-3-642-36751-9_18).

L. Valencia-Cabrera, **M. García-Quismondo**, M. J. Pérez-Jiménez, Y. Su, H. Yu, L. Pan, “\*Modeling Logic Gene Networks by Means of Probabilistic Dynamic P Systems,” *International Journal of Unconventional Computing*, vol. 9, no. 5-6, pp. 445–464, ISSN: 1548-7199. [Online]. Available: <http://www.oldcitypublishing.com/IJUC/IJUCcontents/IJUCv9n5-6contents.html>.

2012 L. F. Macías-Ramos, I. Pérez-Hurtado, **M. García-Quismondo**, L. Valencia-Cabrera, M. J. Pérez-Jiménez, A. Riscos-Núñez, “\*A P-Lingua based simulator for Spiking Neural P systems,” *Lecture Notes in Computer Science*, vol. 7184, pp. 257–281, ISSN: 0302-9743. DOI: 10.1007/978-3-642-28024-5\_18. [Online]. Available: <http://www.springerlink.com/content/jrtrt4273v3086m7/>.

2010 **M. García-Quismondo**, R. Gutiérrez-Escudero, I. Pérez-Hurtado, M. J. Pérez-Jiménez, A. Riscos-Núñez, “\*An overview of P-Lingua 2.0,” *Lecture Notes in Computer Science*, vol. 5957, pp. 264–288, Membrane Computing, 10th International Workshop, WMC 2009, Curtea de Arges, Romania, August 24–27, 2009, Revised Selected and Invited Papers., ISSN: 0302-9743. DOI: 10.1007/978-3-642-11467-0\_20. [Online]. Available: <http://springerlink.com/content/9019651332615113/?p=4515b9a3d094496995e253d08e41004d&pi=19>.

2009 **M. García-Quismondo**, R. Gutiérrez-Escudero, M. A. Martínez-del-Amor, E. F. Orejuela-Pinedo, I. Pérez-Hurtado, “\*P-Lingua 2.0: \*A software framework for cell-like P systems,” *International Journal of Computers, Communications and Control*, vol. IV, pp. 234–243, ISSN: 1841-9836. [Online]. Available: [http://www.journal.univagora.ro/?page=article\\_details&id=368](http://www.journal.univagora.ro/?page=article_details&id=368).

#### Edited Books

2013 L. Valencia-Cabrera, **M. García-Quismondo**, L. F. Macías-Ramos, M. A. Martínez-del-Amor, G. Paun, M. J. Pérez-Jiménez, Eds., “Proceedings of the Eleventh Brainstorming Week on Membrane Computing (11BWMC)”, Sevilla, España: Fénix Editora, pp. x+272, ISBN: 978-84-940691-9-2. [Online]. Available: <http://www.gcn.us.es/files/11bwmc/contents.pdf>.

2012 **M. García-Quismondo**, L. F. Macías-Ramos, G. Paun, L. Valencia-Cabrera, Eds., “Proceedings of the Tenth Brainstorming Week on Membrane Computing”, vol. II, Sevilla, España: Fénix Editora, pp. xiv+292. [Online]. Available: <http://www.gcn.us.es/10BWMC/10BWMCvolIII/bravo12012II.pdf>.

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### Book Chapters

- 2014 M. A. Colomer, **M. García-Quismondo**, L. F. Macías-Ramos, “\*Membrane System-Based Models for Specifying Dynamical Population Systems,” in *Applications of Membrane Computing in Systems and Synthetic Biology*, ser. Emergence, Complexity and Computation. Amsterdam, the Netherlands: Springer Verlag, vol. 7, ch. 4, pp. 97–132. [Online]. Available: <http://www.springer.com/engineering/computational+intelligence+and+complexity/book/978-3-319-03190-3>.
- 2013 **M. García-Quismondo**, L. F. Macías-Ramos, M. J. Pérez-Jiménez, “\*Implementing Enzymatic Numerical P Systems for AI Applications by means of Graphic Processing Units,” in *Beyond Artificial Intelligence: Contemplations, Expectations, Applications*. Berlin, Germany: Springer Verlag, ch. 14, pp. 137–157, ISBN: 978-3642344213. DOI: [http://dx.doi.org/10.1007/978-3-642-34422-0\\_10](http://dx.doi.org/10.1007/978-3-642-34422-0_10). [Online]. Available: <http://www.amazon.com/Beyond-Artificial-Intelligence-Contemplations-Expectations/dp/3642344216>.

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## Recognition

### Fellowships

- 01/2016 **Postdoctoral Fellowship**, *The Jefferson Project at Lake George*, Troy, NY, USA.
- 01/2016 **Smithsonian Fellow Award**, *Smithsonian Institution*, Washington, DC, USA.
- 10/2015 **Post-Doctoral Fellowship at Rutgers University**, *Rutgers University. Project: Modeling epidemiological processes on isolated bird habitats*, New Brunswick, NJ, USA.
- 12/2014 **NVIDIA Inc.**, *NVIDIA CUDA Research Center Distinction awarded to the Research Group on Natural Computing*, Seville, Spain.
- 03/2014 **Post-Doctoral Fellowship at the University of Minnesota**, *National Science Foundation. Project: Frontiers of Earth System Dynamics*, St. Paul, MN, USA.
- 12/2013 **NVIDIA Inc.**, *NVIDIA CUDA Research Center Distinction awarded to the Research Group on Natural Computing*, Seville, Spain.
- 03/2013–02/2014 **Visiting Scholarship at Tufts University**, *Spanish Ministry of Science and Education*, Medford, MA, USA.
- 11/2011–12/2011 **Visiting Fellowship at Huazhong University of Science and Technology (HUST)**, *Programme of Foreign Experts from the Chinese Ministry of Education*.
- 09/2011–11/2011 **Visiting Scholarship at Manchester Metropolitan University (MMU)**, *University of Seville*, Manchester, UK.

### Grants

- 10/2010 **FPU (University Lecturer Training) PhD Student Grant**, *Spanish Ministry of Education and Science*, Madrid, Spain.
- 06/2010 **FPI (University Researcher Training) PhD Student Grant**, *4<sup>th</sup> Plan Propio de Investigación (Own Research Plan) from the University of Seville*, Seville, Spain.
- 09/2008 **Collaboration Internship**, *Spanish Ministry of Education and Science*, Madrid, Spain.

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## Teaching

- 2012–2013 **University of Seville**, *Artificial Intelligence I*, BEng in Computer Science.
- 2011–2012 **University of Seville**, *Artificial Intelligence II*, BEng in Computer Science.
- 2011–2012 **University of Seville**, *Introduction to Knowledge Engineering*, BSc in Statistics.
- 2010–2011 **University of Seville**, *Master Thesis Advisor*, MSc in Professional Education, Advisees: Eduardo Lobatón-Cebrián and Jesús López-Rodríguez.

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## Professional Activities

### Conference/Workshop Organization

- 2018 **Special Session on Biologically Inspired Parallel and Distributed Computing, Algorithms and Solutions (BICAS 2018)**, *Program Committee Member*, <http://hpcs2018.cisedu.info>, Orléans Val de Loire Technopole - OVLT, Informatique Centre Val de Loire - ICVL and Laboratoire D'Informatique Fondamentale d'Orléans - LIFO. Université d'Orléans, Orléans, France.

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🔗 <https://scholar.google.com/citations?user=pa02r4AAAAAJ>

2009–2013 **Brainstorming Week on Membrane Computing**, *Member of the Organizing Committee*, Higher Technical School of Computer Engineering, University of Seville. Seville, Spain, <http://www.gcn.us.es/?q=workshops>.

#### Outreach Activities

2011–2013 **Scientific Summer Campus Andalucía Tech**, *Support Teacher*, Higher Technical School of Computer Engineering, University of Seville. Seville, Spain, [http://www.gcn.us.es/?q=scientific\\_campus](http://www.gcn.us.es/?q=scientific_campus).

2011 **First International School on Biomolecular and Biocellular Computing (ISBBC'11)**, *Support Teacher*, University of Osuna. Osuna, Spain, [http://www.gcn.us.es/?q=scientific\\_campus](http://www.gcn.us.es/?q=scientific_campus).

#### Quality Management

2011–2013 **Implantation of Quality Management System for ISO 9001, 14001, 166002 and 27001 Standards**, *Member of the Management Team*, <http://www.gcn.us.es>, Research Group on Natural Computing. University of Seville, Seville, Spain.

#### Reviewer

2019 **Electronics**, <https://www.mdpi.com/journal/electronics>, 4 articles reviewed.

2019 **Energies**, <https://www.mdpi.com/journal/energies>, 2 articles reviewed.

2019 **Applied Sciences**, <https://www.mdpi.com/journal/applsci>, 1 article reviewed.

2019 **Knowledge-Based Systems**, <https://www.journals.elsevier.com/knowledge-based-systems>, 1 article reviewed.

2018 **Lecture Notes in Computer Science**, <https://www.springer.com/gp/computer-science/lncs>, 2 articles reviewed.

2018 **Neural Computing and Applications**, <http://www.springer.com/computer/ai/journal/521>, 4 articles reviewed.

2018 **Theoretical Computer Science**, <https://www.journals.elsevier.com/theoretical-computer-science/>, 1 article reviewed.

2017 **Integrated Computer-Aided Engineering**, <https://content.iospress.com/articles/integrated-computer-aided-engineering/ica554>, 1 article reviewed.

2017 **Neural Computing and Applications**, <http://www.springer.com/computer/ai/journal/521>, 1 article reviewed.

2016 **Neural Computing and Applications**, <http://www.springer.com/computer/ai/journal/521>, 1 article reviewed.

2014 **Plos One**, <http://www.plosone.org/>, 1 article reviewed.

2014 **Neural Network World**, <http://www.nnw.cz/>, 1 article reviewed.

2012 **Neural Computing and Applications**, <http://www.springer.com/computer/ai/journal/521>, 1 article reviewed.

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🔗 <https://scholar.google.com/citations?user=pa02r4AAAAAJ>

2012 **Scientific Research and Essays**, <http://www.academicjournals.org/sre/index.htm>, 1 article reviewed.

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### Invited Talks

- 2014 **Probabilistic Guarded P systems as a novel modeling framework for population dynamics. *P. oleracea*, a case study**, *Department of Fisheries, Wildlife and Conservation Biology*, University of Minnesota, St. Paul, MN, USA.
- 2013 **Spiking Neural P systems. Applications to regenerative biology**, *Department of Biology*, Tufts University, Medford, MA, USA.
- 2013 **Probabilistic Guarded P systems. A novel modeling framework for population dynamics**, *Department of Biology*, Tufts University, Medford, MA, USA.
- 2011 **Simulation Tools for Membrane Computing**, *School of Electrical Engineering*, Southwest Jiaotong University, Chengdu, Sichuan, China.
- 2011 **Applications of Membrane Computing**, *Department of Systems and Control Engineering*, Huazhong University of Science and Technology, Wuhan, Hubei, China.
- 2011 **P–Lingua: A Programming Language for Membrane Computing**, *Department of Computer Science and Artificial Intelligence*, University of Seville, Seville, Spain.  
Seminar given to students from the MEng in Logic, Computing and Artificial Intelligence at the University of Seville

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### Professional Certificates

- 2015 **Digital Signal Processing**, *Coursera Inc.*, École polytechnique fédérale de Lausanne, Lausanne, Switzerland.
- 2015 **Agile and Lean. Managing Projects and Businesses from the Future**, *Miríada X*, University Rey Juan Carlos, Madrid, Spain.
- 2015 **VLSI CAD. From Logic to Layout**, *Coursera Inc.*, University of Illinois at Urbana-Champaign, IL, USA.
- 2013 **TDD/Test Driven Development from Scratch**, *Higher Technical School of Computer Engineering*, University of Seville. Seville, Spain.
- 2013 **The 7th Program Marco. How to Apply to European Projects. From 7PM to Horizon 2020 and Experiences on 7PM. Case Studies**, *Pavilion of Mexico*, University of Seville. Seville, Spain.
- 2012 **Agile Software Development with Scrum**, *Plain Concepts Inc.*, University of Seville. Seville, Spain.
- 2012 **Latex: Computer-aided Composition of Scientific Texts**, *Department of Differential Equations and Numerical Analysis (EDAN)*, University of Seville. Seville, Spain.
- 2011 **UNE-EN ISO 27001:2005, UNE-EN ISO 9001:2008, UNE-EN ISO 14001:2004 and UNE-EN:ISO 166002:2006 Norms**, *Prescal Enterprise Group*, University of Seville. Seville, Spain.
- 2011 **Implementation of conflict resolution strategies on teaching tasks**, *Institute of Education Sciences*, University of Seville. Seville, Spain.

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- 2011 **Optimization of communication competences on university lecturers**, *Institute of Education Sciences*, University of Seville. Seville, Spain.
- 2011 **Introduction to Molecular Phylogenetic Analysis**, *Centre for Technical Research and Innovation (CITIUS)*, University of Seville. Seville, Spain.
- 2011 **RES Supercomputing and Scientific Seminar of Next Generation Sequencing**, *Barcelona Supercomputing Center*, Andalucía Technological Park. Bioinnovación Building, Málaga, Spain.
- 2011 **Assembling and Annotation of Genomes by using Supercomputing**, *Fundación Centro de Supercomputación de Castilla y León*, Instituto de Empresa, Segovia, Spain.
- 2010 **Information Resources on Informatics**, *University of Seville Library*, University of Seville. Seville, Spain.

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## Languages

Spanish Native Level

English Advanced Level

2012 **Test of English as a Foreign Language (TOEFL)**, *Score: 104/120*.

2010 **Certificate in Advanced English from University of Cambridge–ESOL (CAE)**, *Level C1 at CEFR scale*.

2009 **BSc in English from the Institute of Languages, University of Seville**, *Level C1 at CEFR scale*.

Romanian Advanced Level

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