

SUMMARY

Highly motivated individual with a penchant for problem solving in biomedical research, with a focus on how the environment affects human health and its application to clinical practice. Background and interests include big data analytics, health informatics, ontologies, biomedical data integration, machine learning, data mining, bioinformatics, artificial intelligence, neuroscience, epigenetics and omics in general.

EDUCATION

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|--------------|---|
| April 2014 | <i>Ph.D. in Computer Science</i>
University of A Coruña, Spain
Thesis: "Solving combinatorial optimization problems using evolutionary computation techniques. An application to biomedicine". Advisor: Prof. Julián Dorado |
| June 2013 | <i>Postgraduate Diploma in Business Intelligence Technologies: Design and Implementation</i>
Universitat Oberta de Catalunya, Spain |
| June 2010 | <i>M.S. in Computer Science and Artificial Intelligence</i>
University of A Coruña, Spain |
| October 2008 | <i>B.S. in Computer Science</i>
University of A Coruña, Spain |

POSITIONS AND EMPLOYMENT

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| 2016 – Present | <i>Postdoctoral Research Associate</i>
Brain and Mind Research Institute. Weill Cornell Medicine, USA <ul style="list-style-type: none">• Research in bioinformatics. Participated in the creation of pipelines and tools for processing and analyzing Next Generation Sequencing (NGS) data from human samples for use to clinical settings.• Research in neurogenetics and neuroscience. Analyzed data from patients with neurological disorders and neurodegenerative diseases to unravel their underlying genetic basis. |
| 2014 – 2016 | <i>Postdoctoral Research Associate</i>
School of Computing and Information Sciences. Florida International University, USA <ul style="list-style-type: none">• Research in bioinformatics. Participated in the creation of pipelines and tools for processing and analyzing Next Generation Sequencing (NGS) data. Worked on comparative genomics.• Contributed to devise new metrics and algorithms for metagenomic data and network analysis.• Worked on knowledge extraction from microbiome data.• Collaborated with researchers in the fields of pharmacology, forensics, public health, molecular biology, marine sciences, microbiology and neuroscience to produce meaningful results.• Responsible for coordinating projects and mentoring students at the lab. Supervised one undergraduate thesis from the Computer Science degree.• Responsible for coordinating and organizing computational and molecular biology seminars.• Member of the Editorial Review Board of "International Journal of Big Data and Analytics in Healthcare (IJBDAH)". |
| 2014 | <i>Research Associate</i>
Research Center on ICT. University of A Coruña, Spain <ul style="list-style-type: none">• Participated in the development of a platform for intelligent patient care based on cloud computing. The platform shows different content depending on the patient group (active |

aging or mental health). Integrated Fitbit data with the platform and developed an app for Android to monitor patient behavior.

- 2013 *Visiting Scholar* (From Sep-21-2013 to Dec-21-2013)
Stanford Center for Biomedical Informatics Research. Stanford University, USA
- Participated in the development of a scoring algorithm for biomedical ontology recommendation.
- 2011 – 2014 *Predoctoral fellow. Teaching and Research Assistant*
Dept. Information and Communication Technologies. University of A Coruña, Spain
- Aided the instruction of different courses at the University of A Coruña from different degrees (Basics of Informatics, Degree in Industrial Design and Product Engineering; Informatics for Documentation, Degree in Information and Documentation; Machine Learning, Degree in Computer Science) and at the Spanish Navy (Network Management, Specialty in Information and Communication Technologies for officers). Supervised one undergraduate thesis and one senior project from two Computer Science degrees.
 - Developed an artificial intelligence approach based on evolutionary computation as part of my Ph.D. thesis. Collaborated with several research groups, which implied working in a multidisciplinary environment.
 - Gained experience in bioinformatics and epigenetics working with the CHROMEVAL group from FIU. Collaborated to create CHROMEVALOA db (<http://chromevaloa.udc.es>), which was developed using MySQL, Perl and HTML. Responsible for managing the Ubuntu Linux server in which this resource is stored. Also collaborated with the Gerontology Research Group from University of A Coruña and aided in the creation and maintenance of different PHP-based websites.
 - Reviewer of “Neural Processing Letters” (2012 – present) and of “Database: The Journal of Biological Databases and Curation” (2013). Chair at ICAI’12, WORLDCOMP’12 (Las Vegas, USA) and at IWANN’11 (Torremolinos, Spain).
- 2008 – 2011 *Research Assistant*
Dept. Information and Communication Technologies. University of A Coruña, Spain
- Application and development of machine learning techniques to analyze biomedical and hydrological data.
- 2007 – 2008 *Undergraduate research assistant*
Dept. Information and Communication Technologies. University of A Coruña, Spain
- Application of genetic algorithms for classification rule mining.

SKILLS

Programming Languages: R, C++, HTML, C, Java, MySQL, C#, MATLAB, PHP (prior experience)

(Coding sample at: <https://github.com/vaguiarpulido/>)

Frameworks and Tools: GitHub, Weka, VMWare, SPSS, Visual Studio, Eclipse, SVN

Languages: English, French, Spanish and Galician

HONORS AND AWARDS

- 2013 Competitive grant supporting research stays. Inditex-UDC, Spain
- 2011 “Plan I2C” competitive Fellowship. Xunta de Galicia, Spain
- 2011 “Pre-doctoral” competitive Fellowship. University of A Coruña, Spain
- 2011 Competitive grant supporting travel. University of A Coruña, Spain
- 2009 Competitive research scholarship. Xunta de Galicia, Spain