

Daniel Ruiz-Perez

Phone: 786-585-2184. **Email:** druiz072@fiu.edu. **Location:** Miami, USA. **Visa:** F1. **Nationality:** Spain.
Website: <https://daniruijperez.github.io> **GitHub:** [DaniRuizPerez](#) **LinkedIn:** [daniel-ruiz-perez](#)

HIGHER EDUCATION

- Aug 2020 **Ph.D. In Computer Science.** (ETS GRE Quantitative: 168/170).
Florida International University (BioRG lab), Miami, USA. G.P.A.: 4/4 (Top 1%).
Modeling heterogeneous microbial interactions under a Dynamic Bayesian framework from temporally misaligned longitudinal data. Data Mining application on the microbiome of Bacterial Vaginosis, and study of dimensionality reduction algorithms like PLS-DA or PCA.
- Dec 2019 **M.S. in Computer Science.**
Florida International University, Miami, USA. G.P.A.: 4/4 (Top 1%). Requirements completed.
- Jun 2016 **M.S. in Software Engineering.**
University of A Coruña, Spain. G.P.A.: 3.52/4 (Top 5%). MS's thesis to be defended in 2020.
- Jun 2015 **B.S. in Computer Science.**
University of A Coruña, Spain. G.P.A.: 3.41/4 (Top 5%).

WORK EXPERIENCE

- 2019-2019 **Data Science Summer Intern.**
Advanced Data Analytics Team, Assurant, Miami, USA.
Spearheaded the architecture design and implementation of the end-to-end migration of all on-premise systems to Azure Cloud Ecosystem (Event Hubs, Databricks, Delta Tables, ...).
- 2016–2020 **Graduate Assistant: TA (2016-2017, 2018-2020) and RA (2017-2018).**
Florida International University, Miami, USA.
TA of Graduate Theory of Computation, Operating Systems Principles, Intro to Data Mining, Intro to Microcomputers, and Academic Success Initiative Ambassador for four courses.
- 2015–2016 **Software Engineer.**
Aldaba Information Technology and Services, A Coruña, Spain.
Analysis, design, implementation, and maintenance of an expert system in Java IBM ODM, a radioactive alarm system in C#, and a web application with .NET in a SCRUM team.
- 2014–2015 **Undergraduate Research Assistant.**
Dept. of Information and Communication Technologies. University of A Coruña, Spain.
Use of machine learning to analyze genomic data and development of a bioinformatic platform accessible at chromevol.fiu.edu. In collaboration with CHROMEvol group at FIU.
- 2012–2014 **Judo Instructor.**
Cambre Ocio SL, A Coruña, Spain.

AWARDS RECEIVED

- **Research Grant**, Golden Key International Honor Society, 2019.
- **Conference Travel Fellowships:**
 - ACM-IMS Interdisciplinary Summit on the Foundations of Data Science, 2019.
 - Michigan Institute for Data Science Consortium and Annual Symposium, 2019.
 - ICCABS Student Travel Award, 2018.
 - FIU Graduate and Professional Student Committee: 2017 and 2018.
 - FIU School of Computing and Information Sciences: 2017 and 2018.
- **Golden Key full scholarship and best project award**, International Scholar Laureate Program (ISLP) Delegation on Engineering & Technology, 2018.
- **Biomedical Research Initiative Award**, Florida International University, USA, 2017.
- **Graduate Assistantship**, Florida International University, USA, 2016-Present.
- **Undergraduate research scholarship**, Ministry of Science and Education, Spain, 2015.
- **Research learning fellowship**, University of A Coruña, Spain, 2015.
- **Graduated from high school with the highest honors**. GPA: 3.98, 2011.
- **Exceptional athlete recognition**, Cambre City Council, 2007-2010.

PERSONAL SKILLS

Languages	English: Proficient. Spanish, Galician: Native. Portuguese, French: Elementary.
Job Skills	Experience: Bioinformatics, Machine Learning, Algorithms, Data Mining, Data Analysis, Time Series Analysis, Software Engineering, Back-end Web Development, Android, Azure. Programming Languages: Python, R, MATLAB, Java, C, C#, JavaScript. Databases: MySQL, PostgreSQL, MongoDB. Frameworks: Django, .NET, MEAN Stack. Prior experience: Information Retrieval, Game Theory, Robotics, Computer Graphics, Videogame Development, Expert Systems, Computer Vision, AWS, SCRUM, Cloud.
Member of	IEEE, ACM, YPIE, AXA, SMBE, Golden Key, and Microbiology Society.
Freelancer	Developed 4 Android apps in the wellness and health area.
Other	Certified Judo instructor and 2nd Dan Judo black belt. Several times regional champion.

RESEARCH WORK

Journal publications:

1. Lugo-Martinez[†], **Ruiz-Perez[†]**, Narasimhan, Bar-Joseph (2019). Dynamic interaction network inference from longitudinal microbiome data. *BMC Microbiome*, 7:54, doi: 10.1186/s40168-019-0660-3. [†]**Equal contribution.**
2. **Ruiz-Perez**, Guan, Madhivanan, Mathee, Narasimhan. So you think you can PLS-DA? *To appear in BMC Bioinformatics*, 2019.
3. Szal, **Ruiz-Perez**, Cickovski, Narasimhan. Inferring Relationships in Microbiomes from Signed Bayesian Networks. *To appear in BMC Bioinformatics*, 2019.

Posters:

1. Lugo-Martinez, **Ruiz-Perez**, Narasimhan, Bar-Joseph (2019). Dynamic interaction network inference from longitudinal microbiome data. *RECOMB* at Washington, DC, USA.
2. Coudray, **Ruiz-Perez**, Colbert, Krupp, Kumari, Mathee, Narasimhan (2019). P371 Effect of metronidazole treatment on recurrent and persistent bacterial vaginosis: a pilot study. *Sexually Transmitted Infections*;95:A187
3. Madhivanan, Coudray, **Ruiz-Perez**, Colbert, Krupp, Kumari, Mathee, Narasimhan (2019). P372 Bacterial vaginosis and high-risk human papillomavirus coinfection among African American women in the United States. *Sexually Transmitted Infections*;95:A188.
4. Madhivanan, Coudray, **Ruiz-Perez**, Colbert, Krupp, Kumar, Narasimhan, Mathee (2019). P373 Co-occurrence of bacterial vaginosis and *Trichomonas vaginalis* among young African American women. *Sexually Transmitted Infections*;95:A188.
5. Coudray, **Ruiz-Perez**, Colbert, Krupp, Kumari, Narasimhan, Mathee, Madhivanan (2019). Effect of metronidazole on microbiomes associated with asymptomatic bacterial vaginosis. *Microbiology Society Annual Conference* at Birmingham, UK. doi:10.1099/acmi.ac2019.po0531
6. Lugo-Martinez, **Ruiz-Perez**, Narasimhan, Bar-Joseph (2019). Dynamic interaction network inference from longitudinal microbiome data. *ACM-BCB* at Niagara Falls, NY, USA.
7. Colbert, Coudray, **Ruiz-Perez**, Kumari, Madhivanan, Narasimhan, Mathee (2018). To Treat or not to Treat: Bacterial Vaginosis and its Relationship to Human Papillomavirus. *Microbiology Society Annual Conference* at Birmingham, UK.
8. Suarez-Ulloa, Aguiar-Pulido, **Ruiz-Perez**, Narasimhan, Eirin-Lopez (2016). Network-based analysis of chromatin-associated gene expression dynamics in response to environmental stress. *ISMB* at Orlando, USA.

Conference Proceedings:

1. Lugo-Martinez, **Ruiz-Perez**, Narasimhan, Bar-Joseph (2019). Dynamic interaction network inference from longitudinal microbiome data (Abstract). *SMBE* at Manchester, UK.
2. **Ruiz-Perez**, Guan, Madhivanan, Mathee, Narasimhan (2018). So you think you can PLS-DA? (Abstract and Oral Presentation). *International Conference on Computational Advances in Bio and medical Sciences (ICCABS)* at Las Vegas, NV, USA. doi: 10.1109/ICCABS.2018.8542038.
3. Szal, **Ruiz-Perez**, Cickovski, Narasimhan (2018). Inferring Relationships in Microbiomes from Signed Bayesian Networks (Abstract). *ICCABS*, Las Vegas, NV, USA. doi: 10.1109/ICCABS.2018.8542086.
4. **Ruiz-Perez**, Colbert, Coudray, Mathee, Madhivanan, Narasimhan (2018). Vaginal microbial profile of women with asymptomatic bacterial vaginosis in US (Abstract and Oral Presentation). *Microbiology Society Annual Conference* at Birmingham, UK.

Other Conference presentations:

Young Researchers Abroad Conference (2018) at A Coruña, Spain. *Annual Biomedical and Comparative Immunology Symposium* (2018) at Miami, USA. *International Work-Conference on Bioinformatics and Biomedical Engineering* (2016) at Granada, Spain. *International Conference on Biomedical Research* (2014) at A Coruña, Spain