Daniel Ruiz-Perez

Phone: +1-786-585-2184 **Email**: druiz072@fiu.edu
Location: Miami, USA **Visa Status**: F1 **Nationality**: Spain
https://daniruizperez.github.io https://github.com/DaniRuizPerez https://www.linkedin.com/in/daniel-ruiz-perez

HIGHER EDUCATION

2016–2020 **Ph.D. In Computer Science** (ETS GRE Quantitative: 168/170).
Florida International University (BioRG lab), Miami, USA. GPA: 4/4 (Top 1%).
Modelling 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.

2015–2016 **M.S. in Software Engineering**
University of A Coruña, Spain. GPA: 3.52/4 (Top 5%). MS's thesis to be defended in 2019.

2011–2015 **B.S. in Computer Science**
University of A Coruña, Spain. GPA: 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 4 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.

PERSONAL SKILLS

Languages **English**: Proficient. **Spanish**, **Galician**: Native. **Portuguese**, **French**: Elementary.

Job Skills **Experience in:** 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.

Other skills Certified Judo instructor and 2nd Dan Judo black belt. Several times regional champion.

ADDITIONAL INFORMATION

Member of IEEE, ACM, ΥΠΕ, ΛΧΑ, SMBE, Golden Key, and Microbiology Society.

Freelancer Developed 4 Android apps in the wellness and health area.

Awards **Research Grant**, Golden Key International Honor Society, 2019.
Golden Key full scholarship and **best project award**, International Scholar Laureate Program (ISLP) Delegation on Engineering & Technology, 2018.

Travel Funds: 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.
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.

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. Sazal, **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. Sazal, **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