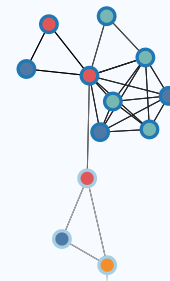



SERGIO RUIZ-CARMONA

I work as a [Clinical Data Analyst](#), uncovering insights to drive informed decision-making. Proficient in extracting EMR records using SQL, I specialize in analyzing and visualizing data using R and Power BI. With a deep understanding of clinical data and a research background, I bring a unique perspective to optimizing healthcare outcomes.



View this resume [online](#)


SELECTED EDUCATION

- 2017
|
2012
- **PhD in Biomedicine**
Universitat de Barcelona  Barcelona, ES
 - Virtual Screening for novel MoA: Apps. and method developments
 - Development and application of **structure-based drug discovery** methods
 - Awards: **Extraordinary prize** for PhD Thesis and **Ramon Margalef award** for best publication

WORK HISTORY

- Today
|
2022
- **Clinical Data Analyst**
Centre for Health Analytics
Royal Children's Hospital  Melbourne, AUS
 - I work as a Clinical Data Analyst, uncovering insights to drive informed decision-making. Proficient in extracting Epic EMR records using SQL, I specialize in analyzing and visualizing data using R and Power BI.

2022
|
2019

 - **Senior Research Officer and Bioinformatician**
Inouye Lab  Melbourne, AUS
Baker Heart and Diabetes Institute
 - I am working in a project that overlaps Structural Biology and Genomics, trying to understand how rare missense variants alter protein structures and can induce disease

2019
|
2017

 - **Postdoctoral Researcher**
Barril Lab, Universitat de Barcelona  Barcelona, ES
 - After finishing my PhD, I worked in exciting collaborative projects in the field of epigenetics and cancer, where I carried out multidisciplinary research and learned new experimental skills

SKILLS AND TRAINING

- **Computational Tools**
Drug Discovery (Virtual screening, Molecular dynamics), Machine learning, Data visualization, Statistical analysis, REDCap, Bioinformatics and Data analysis
- **Programming**
R, Python, Perl, C++, LaTeX, Bash, Java, MySQL, HTML/CSS and Android and Web Development
- **Management Skills**
2021 EMBO Practical Course: Research to service: Planning and running a bioinformatics core facility; Mental Health and OHS certifications
- **Certifications**
Certified Health Informatician Australasia (CHIA), UX/UI Design (RMIT), Dataviz with R (IBM), Machine Learning (IBM)

CONTACT

✉ sruizcarmona@gmail.com
🐦 [@RuizCSergio](https://twitter.com/RuizCSergio)
🌐 [sruizcarmona](https://sruizcarmona.com)
in [Sergio Ruiz](#)
🌐 ruizsergio.com

PROGRAMMING



HIGHLIGHTS

Highly experienced in:

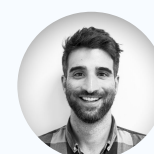
- Computational biology and drug design
- Bioinformatics and biostatistics
- Machine Learning
- Data visualization
- Experimental techniques

Motivated and **collaborative**, recently involved in **Machine Learning**, NGS data analysis, **UK Biobank** and genomics prediction

MORE INFO

See full CV at cv.ruizsergio.com for a complete list of positions, publications and more

Reference contact details provided upon request



Source code available in [github](#)
Last updated in Mar, 2024

OUTREACH AND OTHER ACTIVITIES

2021
|
2020

- **Australasian Leadership Computing Grants**
Story about NCI Computing Grant
 - Together with Mike Inouye, we were awarded a 1 year computing grant by the Australian National Computational Infrastructure to study COVID-19 proteins and possible drug treatments
- **Shiny App development**
Related to a project we published in the Journal *Circulation*
- **New tools for new medicines, The Conversation article**
Lay-summary of some of my work and opinion for The Conversation Spain
- **COVID-19 daily dashboard, until Nov 2020**
Personal project to showcase COVID-19 evolution in Victoria during major lockdown in 2020

MAIN SCIENTIFIC OUTPUT

2022

- **The carbon footprint of bioinformatics**
Molecular Biology and Evolution
Read it [here](#)
 - Jason G Grealey, [...] **Sergio Ruiz-Carmona**, Michael Inouye

2021

- **Oxygen Pathway Limitations in Patients with Chronic Thromboembolic Pulmonary Hypertension**
Circulation
Read it [here](#)
 - Erin J Howden *, **Sergio Ruiz-Carmona** *, [...] Andre La Gerche, Marion Delcroix and Guido Claessen
 - Result of a Bioinformatics Core collaboration. [Shiny app](#) developed

2021

- **Loss of the long non-coding RNA OIP5-AS1 exacerbates heart failure in a sex-specific manner**
iScience
Read it [here](#)
 - Aowen Zhuang, A Calkin, [...] **Sergio Ruiz-Carmona**, [...] and Brian G Drew
 - Result of a Bioinformatics Core collaboration

2017

- **Dynamic undocking and the quasi-bound state as tools for drug discovery**
Nature Chemistry
Read it [here](#)
 - **Sergio Ruiz-Carmona**, Peter Schmidtke, [...] Rod Hubbard and Xavier Barril
 - Highlighted in its [issue cover](#)

2014

- **rDock: a fast, versatile and open source program for docking ligands to proteins and nucleic acids**
PLoS Computational Biology
Read it [here](#)
 - **Sergio Ruiz-Carmona**, Daniel Alvarez-Garcia, [...] Xavier Barril, Rod Hubbard and S David Morley

EVERYDAY TOOLBOX

- RStudio
- Data viz & Shiny dashboards
- Bash, ssh & GitHub (local or HPC)
- ML optimization (genetic algorithms, MC, ...)
- Linear models & random forests

WEB

I have also developed [rDock](#) and [Barril Lab](#) websites, used as dissemination platforms where the different tutorials and blog entries are shared with the community



I have been involved in more than 20 collaborative projects in very different fields. I enjoy helping other researchers and collaborators to work in common scientific challenges



My ultimate goal is to help people: from drug discovery to precision medicine and hospital care data analysis