

# Andrés Acuña

DATA SCIENTIST · BIOSTATISTICIAN

Geneva, Switzerland - B Work Permit

☎ (+41) 78 228 16 28 ✉ andres.acunamarroquin@gmail.com 🌐 Andres-AM 🌐 Andrés Acuña

## Profile

With over 5 years of experience in R programming and statistical analysis, my passion lies in applying these skills to analyze datasets and extract valuable insights. Strong communication abilities complement my technical expertise, enabling effective collaboration and knowledge sharing.

## Skills

**Data Analysis** Experimental design, t-tests, ANOVA (analysis of variance), Survival analysis, regression analysis, prediction, **Sample size calculation and hypothesis testing**

**Data Visualisation** Interactive dashboards using Shiny Apps, **R markdown/Quarto report writing**

**Programming** **R programming with 5+ years of experience**, Base R, Tidyverse, R package creation, Other programming languages : Bash, Python, MATLAB and SQL

**Data Quality** Computerized System Validation in the Biotechnology industry, Good Clinical Practice (GCP), Developing and implementing Standard Operating Procedures (SOPs)

**Version Control** Git and SVN for code management, Data and code documentation

**Bioinformatics** in-silico testing of qPCR primers and probes against DNA databases, parallel processing to enhance speed

**Spoken Languages** **English, French and Spanish: Fluent**, German: level A2

## Experience

### Coople Worker

COOPLE AG

Geneva, Switzerland

2023 - 2024

### Principal Biostatistician

VERACYTE INC.

Marseille, France

05.2019 - 08.2022

- Provided statistical counseling to up to five teams/clients developing biotechnology products, ensuring timely completion despite overlapping deadlines.
- Conducted statistical planning and analysis to evaluate the performance of qPCR kits, leading to 10 successful kit submissions compliant with in-vitro diagnostic regulation.
- Developed and deployed three interactive web applications (Shiny Apps) and two R packages for customized solutions, including data visualization, automated calculations, and reproducible results, in order to optimize data analysis.
- Designed a bioinformatics pipeline for in silico testing of biological reactions using DNA databases, focusing on process optimisation for enhanced efficiency and speed.

### Statistician

INSTITUT IMAGE

Chalon sur Saône, France

03.2016 - 07.2016

- Developed and executed a phobia therapy effectiveness evaluation on study participants.
- Conducted statistical analysis to evaluate the effectiveness of a phobia therapy.

### Software Developer (MATLAB)

EUROPEAN CENTRE FOR RESEARCH ON HUMAN MOVEMENT

Montpellier, France

04.2015 - 07.2015

- Developed a brain-computer interface utilizing an EEG headset to investigate brain wave patterns through time series analysis.
- Established integration between hardware and software components to extract and analyze signals effectively.

## Personal Projects

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### Statistical Report

 [Andres-AM/report-example](#)

DESIGNER/DEVELOPER

- Example of **statistical report** using LATEX, **Rmarkdown**, ggplot2
- Web page link [here](#)

### Survival Analysis

 [Andres-AM/survival-analysis](#)

DESIGNER/DEVELOPER

- A brief step-by-step **survival analysis conducted in R**
- Used tools include quarto, ggsurvfit, survival, plotly, ggplot2, knitr
- Quarto report link [here](#)

### WeightTrackerR

 [Andres-AM/WeightTrackR](#)

DESIGNER/DEVELOPER

- A **Shiny App** for weight tracking and **data visualization** deployed with Shinyapps.io
- Used tools include modelr, dplyr, purr, shiny, lubridate, plotly, DT, and rsconnect
- Shiny App link [here](#)

### NutriPlot

 [Andres-AM/NutriPlot](#)

DESIGNER/DEVELOPER

- **Scatter plot** representation for optimized food selection using **Quarto**
- Used tools include dplyr, ggplot2, plotly, DT, quarto
- Report link [here](#)

## Education

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### University of Montpellier

Montpellier, France

MSc. HEALTH DEVICE ENGINEERING

2014 - 2016

- Data analysis & statistics, mathematical engineering, signal and image processing

### University of Montpellier

Montpellier, France

BSc. BIOTECHNOLOGIES

2011 - 2014

- Cellular and molecular biology, genetics, microbiology

## Interests and other projects

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- Member of the WeData association specializing in data science and computer science.
- **Winner of the Public Prize** at the Cultural Globalization Hackathon, June 19, 2024, in Geneva
- **Created a data quality video** in collaboration with the University of Geneva, link [here](#)

## References

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### Régis Perbost

VERACYTE INC - ASSOCIATE DIRECTOR BIOSTATISTICIAN/BIOINFORMATICIAN

- [regis.perbost@veracyte.com](mailto:regis.perbost@veracyte.com)
- (+33) 4 91 29 41 33

### Olivier Biglia

VERACYTE INC - ASSOCIATE DIRECTOR, TECHNICAL EXPERT

- [olivier.biglia@veracyte.com](mailto:olivier.biglia@veracyte.com)
- (+33) 4 91 29 86 22