

# David Munoz Tord



david-munoztord.com



munoztd0



david.munoztord@mailbox.org



0792441756



## EXPERIENCE

### FLOWBANK | FULL STACK DATA SCIENTIST

Part-time: January 2023 – Present | Geneva, Switzerland

- Performed data analysis to identify trends in customer behavior.
- Conducted research to develop new methods for data analysis.
- Developed data models to predict customer behavior that produced a 10% increase in revenue.
- Created visualizations to communicate findings to stakeholders.
- Implemented data-driven solutions to improve customer engagement.
- Collaborated with cross-functional teams to create and deploy machine learning algorithms, resulting in a 25% reduction in customer churn.

### CICAD ORGANISATION | DATA ENGINEER

Part-time: October 2022 – Present | Geneva, Switzerland

- Worked closely with analysts across departments to design, build and deploy various initiatives within the data platform.
- Developed, deployed and maintained data services using R and PostgreSQL.
- Prepared and presented analysis for trimestrial reports.
- Designed best practices to support continuous process automation for data ingestion and data pipeline workflows.
- Automated amalgamation of data from spreadsheet revenue calculations and PDF reports reducing month end processing time from 2 days to 4 minutes.

### FLOWBANK | R DEVELOPER/ DATA ENGINEER

April 2022 – January 2023 | Geneva, Switzerland

- Developed and implemented complex statistical models in R, resulting in a 15% increase in accuracy for predicting customer behavior.
- Designed and maintained a data visualization dashboard in R, which allowed for easy monitoring of key performance indicators and resulted in a 20% reduction in reporting time.
- Conducted thorough data analysis, resulting in the identification of cost-saving opportunities that resulted in a 5% reduction in expenses.
- Managed Linux servers for the Data Science team and designed best practices to support continuous process automation for data ingestion and data pipeline workflows.

### UNIVERSITY OF GENEVA | LECTURER IN STATISTICS

Part-time: September 2020 – January 2023 | Geneva, Switzerland

- Taught theoretical aspect of statistical modelling.
- Created freely available data wrangling tutorials and workshops in R and Python.

### CAMPUS BIOTECH | GRADUATE RESEARCH ASSISTANT IN NEUROSCIENCE

August 2019 – November 2021 | Geneva, Switzerland

- Developed and implemented computational models of neural systems.
- Conducted research on the mechanisms of neural computations.
- Investigated the dynamics of neural circuits.
- Analyzed the data from neural recordings.
- Applied new methods of model falsification and parameter recovery in a theory-driven approach to computational modelling. CompModeling.

## SKILLS

### PROGRAMMING

#### Proficient:

R • Python • BASH • SQL

#### Experienced:

MATLAB • STAN • JavaScript

### LIBRARIES/Frameworks

TensorFlow • Scikit-Learn • Pandas  
• Spark MLlib • PyTorch • Matplotlib •  
Numpy • Dash • Tidymverse • BRMS •  
Rstan • Caret • Glmnet • • Node.js

### TOOLS/Paradims

Git • AWS: S3, Sagemaker, Glue •  
MIOps • Azure DevOps

## EDUCATION

### MASTER OF NEUROSCIENCES |

#### GENEVA NEUROCENTER

Sept 2018 - March 2020 | Switzerland

Coursework in Reinforcement learning, AI,  
Data science and Neuroimaging. GPA: 3.85

### COMPLEMENTARY STUDIES IN DATA SCIENCE | UMASS AMHERST

Sept 2017 - June 2018 | MA, USA

Received Global Fellow full scholarship.  
Capstone project: Detecting planets via  
transits. SQL database querying.

### BACHELOR OF SCIENCE | UNIVERSITY OF GENEVA

Sept 2014 - June 2017 | Switzerland

Relevant coursework completed in  
statistics and scientific programming.

### COURSEWORK

Algorithms • Data Mining • Machine  
Learning • Artificial Intelligence •  
Linux System Administration • Visual-  
ization For Scientific Data • Database  
Management Systems • Object  
Oriented Programming • Scripting  
Languages and Web Tech

## PROJECTS

### ECHARTS4R | R, JAVASCRIPT - 2023 - PRESENT

- Is an open-source R package that provides a powerful rendering engine allowing progressive rendering up to 10 million data points in realtime.

### GENEVA R-LUNCHES | R - 2023 - PRESENT

- Multidisciplinary meetings on R at UniMail ([presentations](#)).

### WE DATA | R, RUST AND PYTHON - 2022 - PRESENT

- We Data is an organization that shares knowledge on code in social sciences ([Blog](#), [YouTube channel](#)), give [workshops about statistics](#), and do coding demonstrations.

### DbViewerR | R, JAVASCRIPT AND SQL - 2022 - PRESENT

- A shiny app that simulates a database management system featuring functions like login authentication, save/create/delete tables, add/rename columns, using either a PostgreSQL or SQLite back-end [[DbViewerR](#)].

### hBayesDM | STAN, R AND PYTHON - 2021

- Collaborated on the Hierarchical Bayesian modeling of Decision-Making tasks library [[hBayesDM](#)]. Built Q-learning algorithm for probabilistic selection task.

### 3dLMEr | BASH AND R - 2020

- Collaborated on the AFNI's functions for 3Dimensional Linear Mixed-Effects Regression [[3dLMEr](#)]. Fixed residuals output image by adding bottom tolerance.

## PUBLICATIONS

### Does GLP-1 receptor agonist liraglutide alter food-related sensory pleasure in patients with obesity? A randomized controlled trial. [Paper](#)

Coppin, G., Munoz Tord, D., Pool, Cereghetti, D., Golay, A., Sander, D., & Pataky, Z. Europe PMC (2022)

### Differential contributions of ventral striatum subregions to the motivational and hedonic components of the affective processing of the reward. [Paper](#)

Pool, E. R., Munoz Tord, D., Delplanque, S., Stussi, Y., Cereghetti, D., Vuilleumier, P., & Sander, D. Journal of Neuroscience (2022)

### 3D-printed pacifier-shaped mouthpiece for fMRI-compatible gustometers. [Paper](#)

Munoz Tord, D., Coppin, G., Pool, E. R., Mermoud, C., Pataky, Z., Sander, D., & Delplanque, S. Eneuro (2021)

### Early spatial attention deployment toward and away from aggressive voices. [Paper](#)

Burra, N., Kerzel, D., Munoz Tord, D., Grandjean, D., & Ceravolo, L. Social Cognitive and Affective Neuroscience (2019)

## REFERENCES

Pierre Saouter, Head of Data Science at FlowBank ✉ [Pierre.saouter@flowbank.com](mailto:Pierre.saouter@flowbank.com)

Jorge Figueiredo, Head of Information Security at FlowBank ✉ [Jorge.figueiredo@flowbank.com](mailto:Jorge.figueiredo@flowbank.com)

Meirav Banon Skornik, Senior Analyst at the CICAD organisation ✉ [Meirav@cicad.ch](mailto:Meirav@cicad.ch)

Ben Meuleman, Statistician at University of Geneva ✉ [Ben.Meuleman@unige.ch](mailto:Ben.Meuleman@unige.ch)

Eva R. Pool, Senior Researcher at Campus Biotech ✉ [Eva.Pool@unige.ch](mailto:Eva.Pool@unige.ch)

## LANGUAGES

### Fluent

ENGLISH | FRENCH | SPANISH

### Basic

GERMAN | ITALIAN | PORTUGUESE | JAPANESE

## EXTRACURRICULAR

- Co-founder of [Go-Fast](#), a cooperative society of Bike Messengers in Geneva.
- Co-president of [La Rustine](#), a non-profit organization promoting non-motorized mobility and self-sustainability in Switzerland.
- Rock climbing, astrophysics and Linux enthusiast.