

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.
- Designed and implemented Apache NiFi ETL for efficient data processing and orchestration, contributing to streamlined data engineering workflows.
- Conducted research to develop new methods for data analysis in the team.
- 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

- Collaborated with Caltech data engineers to implement TICA for better identification of activation and artifact components in fMRI.
- Developed and implemented computational models to study neural system mechanisms and dynamics.
- Conducted research on neural computations and analyzed data from neural recordings.
- Applied theory-driven approaches, utilizing new methods of model falsification and parameter recovery in computational modeling.

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

Jorge Figueiredo, Head of Information Security at FlowBank ✉ Jorge.figueiredo@flowbank.com

Meirav Banon Skornik, Senior Analyst at the CICAD organisation ✉ Meirav@cicad.ch

Ben Meuleman, Statistician at University of Geneva ✉ Ben.Meuleman@unige.ch

Eva R. Pool, Senior Researcher at Campus Biotech ✉ Eva.Pool@unige.ch

LANGUAGES

Fluent

ENGLISH | FRENCH | SPANISH

Basic

GERMAN | ITALIAN | PORTUGUESE | JAPANESE

AWARDS

2023 - Top 25% on [GitHub Stats](#).

2013 - 3rd place in GoldSprint at the cycle messenger world championship (CMWC) in Lausanne.

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.