








-  Geneva, Switzerland
-  david.munoztord@mailbox.org
-  david-munoztord.online
-  munozt0
-  david-munoz-tord

Technical Skills

| | |
|-----------------------|--------|
| Machine Learning | 7 yrs. |
| Statistical Inference | 9 yrs. |
| R | 9 yrs. |
| Python/TensorFlow | 5 yrs. |
| Git/CI-CD | 7 yrs. |
| Technical Training | 4 yrs. |

ML & Statistical Skills

- ▶ Machine Learning
- ▶ Statistical inference
- ▶ Clinical data analysis
- ▶ Medical Statistics
- ▶ Bayesian Statistics

Tools & Software

- ▶ R, Python, TensorFlow
- ▶ PyTorch, scikit-learn
- ▶ Statistical dashboards
- ▶ Data visualization
- ▶ Version control/ CI-CD
- ▶ Reproducible workflows

Education

**Ph.D. Candidacy in
Computational Neuroscience**

Summary

Results-driven Statistical Research Engineer with extensive experience in machine learning, causal inference, and healthcare data analysis. Proven expertise in developing production-ready ML solutions and providing technical training to clinical teams. Strong background in federated learning and reproducible research practices using R, Python, and TensorFlow. Demonstrated ability to work with medical partners and communicate technical concepts effectively. Passionate about developing innovative statistical solutions for personalized medicine.

Experience

Lead Statistical Analyst

04/2024 - Present

EcoCalc - Environmental Analytics Platform

- Developed causal machine learning methodologies for analyzing complex environmental datasets
- Implemented federated learning workflows using R, Python, and TensorFlow
- Created comprehensive ML pipelines and technical documentation for production deployment
- Conducted statistical inference and validation across multiple data sources
- Designed and maintained quality control procedures for sensitive data
- Collaborated with international agencies to standardize ML approaches

Statistical & Data Science Consultant

10/2022 - 04/2024

Biotech & Technological Sectors

- Led ML projects for biotech clients, implementing machine learning solutions
- Developed reproducible ML workflows for data analysis using TensorFlow and PyTorch
- Created comprehensive technical documentation and training materials for teams
- Provided technical training to teams on ML methods and best practices
- Designed interactive data dashboards for medical data visualization

Statistics & Data Analyst

04/2022 - 01/2024

FlowBank

- Led development of ML models using PyTorch and TensorFlow
- Developed reproducible workflows for production deployment
- Created comprehensive ML documentation using R and RMarkdown
- Implemented causal inference methods for risk assessment
- Provided technical training to team members on ML methods
- Collaborated with international stakeholders on ML projects

Lecturer in Biostatistics

09/2020 - 01/2022

University of Geneva

- Taught ML methods and causal inference to graduate students
- Developed training materials for R, Python, and TensorFlow
- Supervised student research projects involving clinical data analysis
- Created freely available ML workshops and tutorials
- Mentored students in healthcare data analysis

Research Statistician

03/2020 - 01/2022

Novo Nordisk - Campus Biotech

- Conducted ML analysis of large-scale clinical data
- Applied causal inference and federated learning methods
- Developed reproducible ML pipelines using R and Python

03/2020 - 01/2022

Campus Biotech - Switzerland

Focus: Statistical modeling and causal inference

MSc in Statistical Science

09/2018 - 03/2020

University of Geneva - Switzerland

Thesis: Machine learning methods for medical imaging

Complementary Studies in Statistics

09/2017 - 06/2018

Smith College - USA

BSc in Cognitive Science & Statistics

09/2014 - 06/2017

University of Geneva - Switzerland




Focus: Medical statistics and ML

Languages

French Native

Spanish Native

English Fluent

Extracurricular Top 2% on [StackOverflow](#) (2024) Top 25% on [GitHub](#) (2023) Organized multiple healthcare hackathons (2020-2023) Co-founder of [Go-Fast](#), a socially responsible Bike Messenger cooperative in Geneva.

– Wrote technical documentation for medical applications

– Collaborated with international clinical research teams

– Secured research grants for ML healthcare projects

ProjectsSee my [github profile](#) for a more comprehensive list of open source projects.**Co-President**

R, Python, ML, Training

– [We Data](#) is a data science organization focusing on knowledge sharing through blog, YouTube, hackathons and workshops. Organized multiple healthcare hackathons and ML training sessions.

We Data

Creator

R, SQL, Full-Stack Development

– Developed a comprehensive Shiny-based database management system with focus on healthcare data [\[GitHub\]](#). Implemented robust authentication and privacy-preserving features.

DbVieweR

Collaborator

STAN, R, Python, Healthcare ML

– Contributed to hierarchical Bayesian modeling library for clinical decision-making [\[GitHub\]](#). Implemented causal inference algorithms and developed ML techniques for medical research.

hBayesDM

Collaborator/Maintainer

R, JavaScript, Medical Visualization

– Expanded interactive visualization capabilities for medical data [\[Project Website\]](#). Developed high-performance rendering engine for clinical data visualization.

echarts4r

Collaborator/Maintainer

R, JavaScript, Healthcare Data

– Created comprehensive Firebase integration package for secure medical data handling [\[Project Website\]](#). Implemented privacy-preserving authentication and storage mechanisms.

fiRebase

PublicationsSee my [publications page](#) for a comprehensive list of publications and technical reports.**Professional References**[Pierre Saouter](#)✉, Head of Statistical Analysis at FlowBank[Jose Nunes](#)✉, Professor of Biostatistics, University of Geneva[Ben Meuleman](#)✉, Statistician at University of Geneva[Eva R. Pool](#)✉, Computational Neuroscience Professor at Campus Biotech