# KARIN MORANDELL

Data Scientist | Neuroscience PhD



#### **STRENGTHS**

#### DATA ANALYSIS AND MODELING

Proficient several programming languages with experience in machine learning (deep learning, computer vision, AI, data modelling) and algorithm development for task designing.

#### VERSATILE NEUROSCIENCE EXPERTISE

Solid fundamentals with focus on sensory-motor neuroscience, brain-machine interface and mental health. Critical thinking and continuous learning mindset.

#### TEAM WORK AND MANAGEMENT

Proven track record of working, teaching and mentoring in diverse teams, effectively communicating complex scientific concepts through engaging presentations at renowned conferences. Published 5 scientific papers. Funded my research. Launched several networking events and a community-based organic vegetable delivery system for 60 NYU homes.

#### **EXPERIENCE**

## **Auditory Neuroscience Swiss National Foundation Postdoctoral Fellow**

**=** 2019-2023 **♀** 

- New York University, NYC (Schneider lab)
- Project: Impact of behavioral states on sound processing and perception in mice.
- Skills: data processing pipelines, closed-loop task design, auditory virtual reality, sound processing, computational methods, machine learning, protocol writing, mentoring, science communication.
  - Morandell et al. (submitted to J. Neuroscience)

## Postdoctoral researcher in Somatosensory Neuroscience

**=** 2018-2019

- **♀** University of Geneva (Huber lab)
- Project: Demonstrate how mice perceive vibrations through their paws.
- Skills: behavioral task design, closed-loop systems, automated behavioral tasks.

  Prsa, Morandell, Cuenu, and Huber (2019, Nature)

## PhD candidate, specialisation Motor Neuroscience and Decision Making

- **=** 2012-2017
- University of Geneva (Huber lab)
- Project: Contribution of motor cortex to the planning and execution of forelimb movements.
- Skills: behavioral task design, scientific writing, science communication, automating behavioral training and analysis, MATLAB, JAVA.
  - Morandell and Huber (2017, Scientific Reports)
  - © Guo et al. (2014, PLOS One)

## **EDUCATION**

#### PhD in Neuroscience (5.5/6, magna cum laude)

**=** 2012-2017

♥ University of Geneva

## **Masters in Physiology and Neuroscience**

**=** 2009-2011

UPMC University (Paris VI)

### **Bachelor in Biology**

**#** 2006-2009

♥ UPMC University (Paris VI)

#### **SKILLS**

- Statistical Analysis and Modeling
- Machine Learning
- Data Visualization
- Computer Vision
- Supervised and Unsupervised Learning

#### TECH LANGUAGES

Python (Tensorflow, Keras,

BeautifulSoup, scikit-learn)

MATLAB

C++

JAVA

■ HTML

#### **LANGAGES**

French

English

German

Spanish

#### **ABOUT ME**

## PERSONALITY

- solution-oriented
- positive
- curious
- open-minded
- social

## INTERESTS

- life science
- AI
- globetrotting
- diving
- dancing