



# Miguel Fernandes

DATA SCIENTIST WITH THE GOAL TO EMPOWER PEOPLE THROUGH KNOWLEDGE



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#### Date Of Birth

03 January 1985

#### LinkedIn

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## AWARDS

### Hans-Grisebach Award 2014

University of Freiburg

Outstanding dissertation in the field of biochemistry and molecular biology

## CERTIFICATIONS

### Machine Learning with Python

Coursera

April 2020

### Databases and SQL for Data Science with Python

Coursera

May 2021

## LANGUAGES

Portuguese

Native

English

Fluent

German

Fluent

French

Basic

## HOBBIES

Reading, Football, Martial Arts, Biking, Cooking

Collaborator Open Neuroscience:

<https://open-neuroscience.com/>

## EXPERIENCED DATA SCIENTIST FASCINATED BY THE ANALYSIS OF COMPLEX DATASETS TO GAIN VALUABLE INSIGHTS AND IMPROVE DECISION-MAKING

- Capable of gaining actionable knowledge and learning new methods.
- Committed team player with strong leadership skills, who thrives on cross-functional teams.
- Natural communicator capable of distilling complex information to crucial points and presenting to broad audiences.

## SKILLS

Presentation

Python

AI

Life sciences

Machine learning

Problem-solving

Bash

Git

Visualization

Molecular Biology

## PROFESSIONAL EXPERIENCE

### DZNE (Deutsches Zentrum für Neurodegenerative Erkrankungen)

Head of the Image and Data Analysis Facility (IDAF)/Data Scientist

(March 2021 - Present)

- **Managing a team of Data Scientists** (implementing the strategy for the team, **communication to stakeholders**, budget management)
- **Data Science** (artificial Intelligence, deep learning, machine learning, statistical analysis)
- Software Development for data analysis (**Python, NumPy, Pandas, Scikit-learn, OpenCV**)
- Development of **machine learning algorithms** for predicting drug activity, toxicity, or mechanism of action (high-content screening)
- Consulting and teaching data analysis and visualization techniques (e. g. Matplotlib, Seaborn)
- Complex data analysis supporting **Research and Development** projects

### Max Planck Institute of Neurobiology

Researcher/Data Scientist

(September 2013 - February 2021)

- Analysis and **visualization of complex datasets** (Python, Python, NumPy, Pandas, Scikit-learn, Seaborn)
- Employment and development of diverse machine learning tools and **analysis of unstructured datasets** (supervised and unsupervised learning algorithms)
- Establishment and maintenance of advanced imaging technologies
- High-resolution object tracking using **computer vision** (e.g. OpenCV)
- Analysis of 3D/4D biological data (Python, Bash, CMTK, ANTs, and Image J Macro scripts)

## EDUCATION

### University of Freiburg

PhD Neuroscience, Biology

(April 2009 - August 2013)

- Construction of behavioral setups and **analysis of imaging and time-series data**.
- Development of molecular and transgenic tools for neural circuit dissection
- Confocal imaging of *in vivo* and *in vitro* brain samples
- Development of Immunohistochemistry and Fluorescent *in situ* Hybridization techniques

### University of Porto

Licentiate (Masters equivalent) Biology

(September 2003 - September 2008)