

Computational Neuroscientist / Electrophysiology Software Engineer

At MaxWell Biosystems, we innovate the future of electrophysiology by developing cutting-edge technologies for neural activity recording. Our platform includes the software MaxLab Live, a custom-designed integrated circuit, and an FPGA-based data acquisition system that generates vast amounts of data when electrically imaging neuronal tissue. These data are processed, analyzed, and visualized in real-time.

We are seeking a highly motivated **Computational Neuroscientist** or **Electrophysiology Software Engineer** to join our interdisciplinary team. The ideal candidate will bridge the gap between software engineering and electrophysiology data analysis, helping us develop novel tools for neuroscience research and drug discovery.

Your Mission

- Develop and enhance robust pipelines for neural data analysis, including spike sorting and feature extraction algorithms
- Integrate cutting-edge methods, including machine learning or advanced statistical techniques, to improve the accuracy and efficiency of neural data analysis
- Collaborate with neuroscientists and electrophysiologists to identify key challenges in data interpretation and implement practical software solutions
- Contribute to the development of APIs and tools that simplify and enhance user workflows for neural data exploration
- Contribute your own ideas in our agile development process
- Work in a multidisciplinary environment, understand customer needs, continuously improve user experience

Our Current Tech Stack

- Python for our analysis algorithms we are relying on the Python data science stack
- C++ for real time processing and visualization
- Qt we embrace Qt for all our user interfaces
- Linux and bash

Your Profile

- Background in computational neuroscience or electrophysiology, with a solid understanding of neural signal processing
- Knowledge of spike sorting techniques (e.g., Kilosort, SpyKING CIRCUS) and neural data analysis workflows is a strong plus
- Enjoy writing elegant and maintainable code
- Good programming skills in Python, familiarity with C++
- Knowledge in Linux, Bash and Python
- Great teammate, entrepreneurial mindset
- Keen to help create a positive, supportive, engaging team environment
- Strong interpersonal and communication skills to collaborate effectively with interdisciplinary teams



- Be part of an international and multidisciplinary team at the forefront of neuroscience and technology
- Work on challenging projects that combine biology, computation, and engineering
- Help develop cutting-edge tools that advance neuroscience research and drug discovery
- Enjoy a collaborative, innovative, and supportive work environment

Jan Müller looks forward to receiving your application documents (cover letter, resume, letter of recommendation and degrees including transcripts) by email at hr@mxwbio.com.