

Computational Biologist - Blood Pressure Physiology/Hemodynamics

Location: Based at the Biospectral headquarters in Lausanne, Switzerland

Status: Full-time (100%) employment

Reports to: CTO

Are you passionate about solving one of the most exciting and sophisticated opportunities in medicine today using physiology and hemodynamics modeling as well as advanced machine learning methods?

Your work will positively impact one third of the world's population and has a direct impact on our core business. This is an applied research role – your research will be integrated into our machine learning models and objectively tested in clinical trials with hundreds of subjects. We have deep and rich datasets, enabling you to extract insights into the drivers of blood pressure physiology, using your knowledge in hemodynamics, physiology modeling, and machine learning.

We are looking for someone with hands-on experience in physiology modeling, hemodynamics or analysis and extraction of vital signs. The ideal candidate will have additional experience with in-silico simulation and machine learning principles.

You have:

- PhD or equivalent experience in computer science with a strong background in human physiology or related field, with a strong track-record in hemodynamics.
- 5+ years experience working with medical devices, vital sign analysis and/or diagnostics.
- Practical experience with data analysis and processing (Python expertise required).
- Experience with Machine Learning models or computational modeling, with a strong preference for past experience in hemodynamics-related models.
- Team player, with excellent multi-tasking and time-management skills, resilience and a start-up mindset.
- Results-oriented person, with critical thinking and excellent problem-solving skills.
- High-level interpersonal, verbal, and written communication skills, ability to work with multicultural and multinational teams.
- English fluency required.

What you will do:

- Understand the medical needs, physiological factors, and clinical context driving your work, identify key objectives and requirements for algorithm optimization, develop strategies to model human physiology, formulate problem definitions and solutions, and develop these solutions from prototyping through final production code delivery supporting the platform.

Job Description

- Collaborate and brainstorm with other team members on advanced solutions for estimating blood pressure.
- Develop documentation and specifications related to your work, both for internal and regulatory requirements.
- Engage in interdisciplinary collaboration: discuss and produce solutions working together with experts with different backgrounds (clinical, software, hardware, product management, etc.)

All applications (CV + cover letter) should be submitted to hr@biospectal.com