

Good Morning,

The Gerber Lab at Harvard Medical School currently has open positions for Post Doctoral Fellows (see below). We are hoping you can help us share this with graduate students in your program. If you are not the right person to contact, I would be extremely grateful if you could let me know who to contact with regards to this.

The Gerber Lab, headed by Georg Gerber MD, PhD, has a unique “dry lab/wet lab” emphasis, with a focus on developing novel machine learning methodology coupled with experimental techniques applied to solving relevant biomedical problems. Positions in the lab can be good opportunities for trainees to develop new skills in the deep learning field and/or applications in the biomedical sphere.

Thank you for your time!

Best,  
Tarissa

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### Post Doctoral Fellow in Deep Learning for Microbiome Spatial Omics

The Gerber Lab (<http://gerber.bwh.harvard.edu>) is a multidisciplinary group at Brigham and Women's Hospital/Harvard Medical School that develops novel computational models and high-throughput experimental systems to understand the role of the microbiota in human diseases, and applies these findings to develop new diagnostic tests and therapies. A long-standing and continuing focus of the lab is on incorporating principled probabilistic models into machine learning methods. The director of the lab, Dr. Georg Gerber, MD, PhD, MPH, uses his unique expertise, combining deep learning method development, medical microbiology, and human pathology, to leverage cutting-edge technologies to tackle scientifically and clinically important problems.

We are looking for an exceptional researcher who will play a major role in new initiatives in the lab to develop novel deep learning (DL) approaches to further understanding of the spatial organization of the microbiome--the trillions of microbes living on and within us---and its interactions with mammalian cells. The successful candidate will be highly motivated and creative, taking a lead role in developing new deep learning-based methods, analyzing data, and interpreting results. Although experience analyzing data from biological systems is required, microbiome specific knowledge is not. This position is a great opportunity for an individual with EITHER a strong machine learning background who wants to get domain-specific research experience, OR someone with a strong mathematical background (e.g., Applied Math, Statistics or Physics PhD) who wants to get more machine learning experience.

#### Qualifications:

- PhD in Computer Science, Computational Biology, Ecology, Mathematics, Physics, Statistics, or other highly quantitative discipline.
- Outstanding publication track record.
- Strong mathematical background and skills.
- Experience developing DL methods.
- Experience analyzing data from biological systems.
- Solid programming skills in Python, including PyTorch.
- Superior verbal and written communication skills, and ability to work on multidisciplinary teams.

Environment: the Gerber Lab is located in the Brigham and Women's Hospital Division of Computational Pathology (<http://comp-path.bwh.harvard.edu>) at Harvard Medical School (HMS). With a recent grant from the Massachusetts Life Science center, the Division has built the Lab for AI/Deep Learning for the Microbiome, which has a state-of-the-art GPU cluster for model development, training and deployment. BWH is part of the greater Longwood Medical Area in Boston, a rich, stimulating environment conducive to intellectual development and research collaborations, which includes HMS, Harvard School of Public Health and Boston Children's Hospital.

**To apply: email a single PDF including cover letter, CV, brief research statement and a list of at least three references to Dr. Georg Gerber ([ggerber@bwh.harvard.edu](mailto:ggerber@bwh.harvard.edu)).**

*We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, gender identity, sexual orientation, pregnancy and pregnancy-related conditions or any other characteristic protected by law.*