JOHNS HOPKINS
WHITING SCHOOL
of ENGINEERING

Subject: Seeking Research Assistant for BodyMaps Program

Non-PAID

Dear All,

I hope this message finds you well. We are thrilled to extend an opportunity to join our team at Johns Hopkins University in developing three-dimensional atlas of human body (BodyMaps). We are actively seeking several skilled and passionate research assistants to make substantial contributions to this program.

About BodyMaps Program

BodyMaps is a rigorously mentored research program at the convergence of Artificial Intelligence (AI) and Medicine, hosted at the Computational Cognition, Vision, and Learning (CCVL) lab. It welcomes students, researchers, clinicians, and developers around the world. Over 9-12 months, candidates will lead high-impact research, receive training and work in small interdisciplinary teams.

The goal is to create comprehensive annotations of the entire human body, enabling us to build large-scale annotated datasets and develop effective AI algorithms. There are three major efforts in our medical research group: scaling annotations [Qu et al., NeurIPS 2023, Li et al., ICLR 2024, MEDIA 2024], synthesizing tumors [Hu et al., CVPR 2023, Chen et al., CVPR 2024, Lai et al., MICCAI 2024], and innovating algorithms [Liu et al., ICCV 2023, MEDIA 2024]. A brief introduction can be found in this video and slides.

This fast-paced program requires a commitment of **35-40 hours weekly**, including a large group meeting once a week and two smaller project meetings. Candidates will learn how to manage a research project from conception to leading a manuscript, often as first authors, gaining expertise in the latest medical AI research.

Mentors

Prof. Zongwei Zhou is the director of the BodyMaps program, and directly mentors each project. The program is overseen by highly qualified mentors who are experts in their respective fields. Each project is assigned one or more mentors, ensuring access to top-tier expertise and direct mentorship.

- Zongwei Zhou, PhD | Assistant Research Professor | Johns Hopkins University
- Alan Yuille, PhD | Bloomberg Distinguished Professor | Johns Hopkins University
- Pedro R. A. S. Bassi, PhD | Postdoctoral Fellow | Johns Hopkins University
- Heng Li, PhD | Associate Professor | Johns Hopkins Medicine
- Kai Ding, PhD | Associate Professor | Johns Hopkins Medicine
- Yang Yang, PhD | Associate Professor | University of California, San Francisco
- Kang Wang, MD, PhD | Assistant Professor | University of California, San Francisco
- Yucheng Tang, PhD | Senior Research Scientist | Nvidia
- Szymon Płotka, PhD | Assistant Professor | Jagiellonian University

JHU students can get research units with Prof. Zongwei Zhou.

How to Apply

If you're interested in participating these research projects, please take a look at our warm-up training described [here](). This training is important as it develops the necessary skills for the upcoming medical projects. Interested candidates should submit three items to Dr. Zongwei Zhou at zzhou82@jh.edu

1. resume/CV
2. refined AbdomenAtlasDemoPredict folder (compress it)
3. postprocessing code postprocessing_vertebrae.py

There is no specific submission deadline; you can start the project at any time, provided the submitted results meet the criteria aligned with our expectations. Multiple submissions are allowed, with a maximum of one submission per day.

The position can be either in-person or remote, though in-person participation is encouraged.

Thank you.