



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 project.

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 group¹: **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, gaining expertise in the latest medical AI research.

¹ These works are all done by our research assistants in 2023-24.

Mentors

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.

- Alan Yuille, PhD | Bloomberg Distinguished Professor | JHU
- Zongwei Zhou, PhD | Assistant Research Scientist | JHU
- Kai Ding, PhD | Associate Professor | JHMI
- Heng Li, PhD | Associate Professor | JHMI
- Yang Yang, PhD | Associate Professor | UCSF
- Kang Wang, MD, PhD | Assistant Professor | UCSF
- Yucheng Tang, PhD | Research Scientist | NVIDIA

Warmup Training: Vertebrae Segmentation

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.