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Graduate Student Research Positions in Biomedical Imaging

With the collaborative efforts by Wright State University, Ohio State University and University of Cincinnati, we focus on noninvasive optical imaging of the brain function and cancer at preclinical and clinical settings. We are looking for candidates (paid full-time/part-time) to take an active part in optical imaging for optical neuroimaging (e.g. autism, traumatic brain injury), and cancer diagnosis (e.g. oral, ovarian, skin cancers). The position offers a stimulating work environment integrating engineering and physics with medicine, neuroscience and biology. The candidate will have a unique opportunity in both basic lab and translational research by collaborating with scientists and clinicians located in close proximity at the common infrastructure and collaborative institutes including Medical and Research Centers in Wright State University, Ohio State University and University of Cincinnati.

Sample Publications:

https://scholar.google.com/citations?hl=en&user=q4FqPgYAAAAJ&view_op=list_works&sortby=pubdate

Functional brain Imaging: <http://onlinelibrary.wiley.com/doi/10.1002/jbio.201700165/abstract>

<https://www.osapublishing.org/boe/abstract.cfm?uri=boe-7-10-3871>

Cancer Imaging: Nature Scientific Reports: <https://www.nature.com/articles/s41598-017-15790-y>

<https://www.osapublishing.org/boe/abstract.cfm?uri=boe-8-6-3045>

Deep Learning/Machine Learning:

<https://www.osapublishing.org/boe/fulltext.cfm?uri=boe-11-10-5557&id=439593>

<https://www.osapublishing.org/boe/fulltext.cfm?uri=boe-7-10-3871&id=349824>

Qualifications: The qualified candidates should be highly motivated and enthusiastic, with interests in optical imaging and biophotonics. Strong background in one of the following fields is needed: Biomedical Engineering, Electrical Engineering, Computer Science, Physics, Optical Engineering or related fields. At least one of the skills below is preferred.

- Experience in optical, opto-mechanical, electro-optic systems, CCD cameras, LEDs, lasers, structured light illumination, spatial light modulators (DMD), digital light projection (DLP).
- Experience in hardware control and signal acquisition using NI DAQ card, NI LabView, correlator board, photon counter and timer board and FPGA.
- Experience in EE concepts (RF, microwave, direct digital synthesis, digital signal processing, ADC, DCA).
- Strong programming skills with Matlab for signal/image processing.
- Strong experience in deep learning, machine learning, compressed sensing.
- Experience in (tissue) optics, biomedical optics, functional near infrared spectroscopy, diffuse reflectance spectroscopy, diffuse correlation spectroscopy, speckle imaging, diffuse optical tomography, endoscopy, microscopy.

To Apply: Please email your CV and cover letter describing your background to:

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