Child Mind Institute

215 East 50th Street
New York, NY 10022
212.308.3118
childmind.org

JOB OVERVIEW			
JOB TITLE	Postdoctoral Fellow	**DEPARTMENT**	Research- Ctr for Integr Devel Neuroscience
REPORTS TO TITLE	Director, Integrative Developmental Neuroscience	**JOB LOCATION**	Midtown, NY
WORKPLACE SETTING	ONSITE ☐ HYBRID ☒ (min. 4 days in office per week) REMOTE ☐ **Disclaimer:** The availability of hybrid work arrangements is subject to change at the company's discretion based on business needs, operational requirements, and other factors. The company reserves the right to modify, suspend, or discontinue hybrid work options at any time, with or without notice. Employees may be required to transition to an onsite work arrangement as determined by management.		
FT/PT	FULL TIME ☒ PART TIME ☐	**HRS PER WEEK**	40
DATE			

POSITION DETAILS (HR ONLY)		
EMPLOYEE TYPE (EEO Category)		EXEMPT ☒ NONEXEMPT ☐

POSITION SUMMARY	
POSITION SUMMARY	The Postdoctoral Research Fellow will focus on studying brain structure and functional connectivity at the forefront of computational neuroscience. You will work in close collaboration with internal and external partners to advance the modeling of whole-brain dynamics through the integration of microstructural brain data into large-scale simulations. You will work closely with an interdisciplinary team of neuroscientists, software developers, and data scientists to design, implement, validate, and disseminate open-source tools that integrate mesoscale neurotransmitter receptor maps into a neural mass modeling (NMM) simulation environment, and extend existing brain simulation tools to explore the biological underpinnings of brain function.

RESPONSIBILITIES	
ESSENTIAL RESPONSIBILITIES	• Process and analyze large-scale fMRI, MRI, and DTI data from human and non-human primate datasets using high-performance computing infrastructures. • Design and conduct simulations of whole-brain activity using surface-based cortical meshes and brain atlases and validate simulation outputs against empirical fMRI data. • Implement Python code to integrate anatomic priors into existing NMM simulation • software. • Prepare manuscripts for publication in peer-reviewed journals and assist with grant • applications and data sharing with collaborators. • Provide guidance and support to junior research staff, including assistance with data analysis and professional development. • Support the completion of ongoing and future grant-funded projects • Perform other job-related duties as assigned.
MANAGEMENT RESPONSIBILITIES	This is a non-supervisory position.

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QUALIFICATIONS	
MINIMUM QUALIFICATIONS	• Ph.D. in neuroscience, biomedical engineering, computer science, physics, applied mathematics, or a related field. • Publication track record demonstrating ability to conduct independent research and work collaboratively within a multidisciplinary team; with at least 1 first author publication or multiple middle author publications with significant contribution to the project. • 3+ years experience in Python and scientific computing (e.g., Numpy, Scipy, Scikit-Learn), and the Git version control systems. • 3+ years experience of existing neuroimaging software packages (e.g., ANTs, FreeSurfer, AFNI, FSL) file formats (e.g., NIfTI, GIFTI, CIFTI). • 3+ years of experience in neuroimaging research, including expertise with one or more imaging modalities such as fMRI, DTI, MRI, EEG, or MEG.
GENERAL QUALIFICATIONS	• Strong interpersonal and communication skills in English, including written and oral communication. • Work cooperatively and contribute to group efforts in a very collaborative, opensource, and multidisciplinary environment. • Efficiently handle multiple responsibilities and meet deadlines in a fast-paced environment
ADA RELATED QUALIFICATIONS	This position is based in a professional office environment. It requires the ability to sit or stand for extended periods, operate standard office equipment (including computers, phones, copiers, and printers), perform repetitive tasks, and communicate effectively with others. Occasional lifting of up to 20 pounds may also be required.

Disclaimer	
	Child Mind Institute is committed to fostering an inclusive and equitable workplace where all individuals are treated with respect and dignity. We are proud to be an equal opportunity employer and prohibit discrimination and harassment of any kind.

Acknowledgement			
	I acknowledge that I have received, read, and understood the responsibilities, expectations, and qualifications outlined in this job description. I understand that I am expected to comply with all company policies and procedures while employed. I understand that this job description is intended to provide a general overview of the role and does not represent an exhaustive list of all responsibilities or tasks. The organization reserves the right to modify, add, or remove duties as necessary to meet business needs.		
Manager		**Date:**	
Employee		**Date:**	