RESEARCH FOUNDATION CUNY

Careers at RFCUNY
Job Openings

Job Title	AI Research Associate
PVN ID	MD-2412-006606
Category	Research
Location	CUNY SCHOOL OF MEDICINE
Department	Office of Research
Status	Full Time
Annual Salary	$54,715.00 - $91,190.00
Hour(s) a Week	35
Closing Date	Feb 05, 2025 (Or Until Filled)

General Description

The CUNY School of Medicine (CUNY MED) is the only medical school in the City University of New York (CUNY) system. Our innovative curriculum allows students to complete both their Bachelor of Science and Doctor of Medicine degrees in seven years. The CUNY School of Medicine also offers a Master of Science degree in Physician Assistant Studies. Our mission is to provide access to medical education for talented individuals from social, ethnic and racial backgrounds historically underrepresented in medicine, and to develop health professionals committed to practicing in under-served communities with a special emphasis on reducing health disparities.

As the recipient of a Research Centers in Minority Institutions (RCMI) U54 Cooperative Award from the National Institutes of Health, Chummed has established the New York Center for Minority Health Equity and Social Justice (NYC-MHESJ), whose mission is to address and advance the science of health disparities affecting historically underserved communities in New York City. The NYC-MHESJ is aligned with the National Institute on Minority Health and Health Disparities (NIMHD) vision to advance the science of minority health and health disparities research by developing & strengthening the research infrastructure to conduct state-of-the-art research and foster the development of the next generation of scientists focused on diseases that disproportionately affect minority populations.

Under the general supervision of the RCMI NYC-MHESJ Multiple Principal Investigators (MPIs), and reporting directly to the Research Capacity Core (RCC) director, the AI Associate (AIA) will provide creative expertise and support for a variety of research projects across clinical, biomedical, behavioral and natural sciences. The AIA will develop and adapt algorithms and models that can drive innovations in medical devices and diagnostics, healthcare access and utilization, and equitable translation of research discoveries to improve the health of all but especially underserved communities.

The AI Research Associate will collaborate with faculty, researchers, and clinicians from diverse fields to apply cutting-edge AI techniques to large-scale medical datasets, including electronic health records (EHR), genomics, imaging, and clinical trials data. The AIA will play a key role in helping the team design and implement AI-driven research projects with the goal of advancing scientific discovery and improving patient

outcomes. AI applications toward enhancing the education of physicians and other healthcare professionals also are anticipated.

Other Duties

- Develop and implement AI/ML algorithms for the analysis of large biomedical and clinical datasets, including EHRs, genomic data, medical imaging, and clinical trials data.
- Apply state-of-the-art AI techniques, such as deep learning, natural language processing (NLP), and reinforcement learning to solve complex biological and clinical problems.
- Develop algorithms and workflows for debiasing and balancing human subjects data used in research or clinical decision-making.
- Collaborate with researchers, clinicians, and data scientists to translate clinical and biological questions into AI models and algorithms.
- Assist with the preprocessing, feature engineering, and cleaning of large, complex datasets to rigorously prepare data for AI-driven analysis.
- Communicate research findings and insights through technical reports, academic papers, and presentations to diverse audiences, including researchers, clinicians, and policymakers.
- Contribute to the writing of grant proposals and research publications, including co-authoring papers in scientific journals and conferences.
- Continually review advancements in AI/ML and biomedical or healthcare technologies, with a view to adapting and adopting relevant concepts and tools to enhance research capabilities.
- Train and mentor graduate students and researchers in AI concepts and tool development, including workflows and data curation.

Qualifications

- Ph.D. in Computer Science, Artificial Intelligence, Machine Learning, Bioinformatics, Data Science, or a closely related field from an accredited institution and not fewer than two (2) years **additional** research experience in the field, or specialty, related to the scope and complexity of the project; and, a record of research, publications, and scholarship in a related field, **OR**
- A Master's Degree in Computer Science, Artificial Intelligence, Machine Learning, Bioinformatics, Data Science, or a closely related field from an accredited institution, **and** at least four (4) years of **additional** research experience pertinent to the scope and complexity of the project; **OR**
- Equivalent intellectual strength and experience as evidenced in progressively responsible research experience, publications in the field, and/or other accomplishments (e.g. significant participation in important inventions, artistic endeavors, etc.);

Preferred Qualifications:

- Experience with cloud computing platforms (e.g., AWS, Google Cloud)
- Experience in the application of AI to medical imaging, genomics, EHR, and similar clinical and preclinical data
- Familiarity with healthcare data formats and standards, such as DICOM, HL7, FHIR, or other clinical data protocols

- Publications in AI/ML or healthcare-related journals and conferences are highly desirable
- Prior work in a multidisciplinary academic or medical research setting including experience in experimental design, grant writing, and manuscript preparation

Core Competencies

- Strong proficiency in programming languages such as Python, R, and Java, with experience in ML frameworks like TensorFlow, PyTorch, Keras, or Scikit-learn;
- Solid understanding of deep learning, natural language processing (NLP), computer vision, and other AI techniques used in healthcare applications;
- Strong analytical and problem-solving skills, with demonstrated ability to work independently on complex tasks and collaborate in a team environment;
- Proficient written and verbal communication, with the ability to explain complex AI concepts and results to both technical and non-technical stakeholders;