Cleveland Clinic Job Description

Senior Faculty – Artificial Intelligence Research
Center for Computational Life Sciences
Cleveland Clinic

The Center for Computational Life Sciences at Cleveland Clinic offers an opportunity for a visionary Senior Faculty to establish our biomedical research and healthcare system as a global leader in Artificial Intelligence Research (AI). This Senior Faculty position will shape and expand AI technologies and applications centered around biomedical science and healthcare, supported by strong institutional commitment to build their vision. The Center for Computational Life Sciences will serve as a multi-institutional hub for collaborative research in computational life sciences and biomedicine positioned at the intersection of modern biology, computer science, predictive modeling, simulation, and AI. Cleveland Clinic’s electronic health record (EHR) is one of the largest in the world, containing data on over 7 million patient lives. Multi-omics data go back well over 20 years, comprised of over billions of data points. With continuous streams of multi-modal, large volume clinical and research data, AI at Cleveland Clinic is ripe for innovation. This Senior Faculty position will have dedicated access to Cleveland Clinic’s first-of-its-kind quantum computing facilities supported by a strong research and infrastructure partnership with IBM.

The Artificial Intelligence Research program will actively engage with universities, government, industry, startups and other relevant organizations globally and as part of Cleveland Clinic’s role in the Cleveland Innovation District. Cleveland Clinic launched many initiatives to enrich clinic and research data including the creation of an enterprise data vault as well as a clinical research data warehouse. Cleveland Clinic continuously works to improve the quality, governance, and democratization of its data to enhance and accelerate research. The program will elevate Cleveland Clinic as the leader for a new AI ecosystem for life sciences, focused on advancing artificial intelligence skill through the development and application of scalable computational tools and techniques fit for the transdisciplinary problems in biosciences. The Artificial Intelligence Research program will be located in the newly constructed state-of-the-art research space for the Center. Rank will be commensurate with experience; competitive applicants will be considered for recruitment as a full staff member (equivalent to full professor).

Job Requirements

- PhD in Computer Science, Computer Engineering or related field
- A minimum of 6 years related experience
- Research experience in developing machine learning and AI models and deploying into practice applicable to scientific discovery and innovation in biomedical research and healthcare
- A solid foundation in computer science, with proven advanced capabilities in data structures, algorithms, and software design.
- Advanced skills in structured and unstructured data analytics, including heterogenous data types, e.g., imaging, language, physiological signals
- Demonstrated ability to lead a multidisciplinary team
- A successful record of developing research partnerships and collaborative relationships with universities, industry, and research laboratories.
- Excellent interpersonal skills, the ability to work independently, outstanding written and oral communication skills, good organizational skills
Essential Duties and Responsibilities

Major duties include
- Oversee high-quality research in collaboration with a diverse, interdisciplinary team of doctoral-level data scientists and engineers within the Center and researchers and physicians across the Cleveland Clinic institutes and outside of Cleveland Clinic
- Collaborate with other leaders (intramural or extramural) on AI governance and implementation strategy
- Design and carry out original research in AI and its applications in biomedicine
- Develop research ideas into actionable research strategies and programs
- Publish research in peer-reviewed journals and conference proceedings

Interested candidates should email a curriculum vitae, the names of at least three references and a letter summarizing experience, research interests, current funding sources (including potentially moveable resources), and current team composition (including potentially movable personnel), to cclsJobSearchAI@ccf.org. Review of applications will occur on a rolling basis and continue until the position is filled.

This is a central and critical role for Cleveland Clinic.

Description of Cleveland Clinic Infrastructure for Health care Innovation

Cleveland Clinic has operated for over 100 years on the principle of bringing innovative teams together to provide better care for patients worldwide. Today, Cleveland Clinic is a world leader in science-based healthcare (see: Cleveland Clinic Main Campus Tour video). Our strategic plan for Research Development will harness information technology to power significant advances in both personalized and population medicine. A major component of the strategy will be our anchor role in building the Cleveland Innovation District. This unprecedented collaboration includes participation and investment by the State of Ohio along with 5 independent Cleveland healthcare and academic institutions and is designed to transform research, education, and economic opportunities in Northeast Ohio and globally.

As part of the Cleveland Innovation District, Cleveland Clinic has pledged to double its research footprint and output in the next five years and create thousands of new jobs. A substantial part of this commitment involves the creation of the Global Center for Pathogen & Human Health Research. A major goal of the center is to develop the means to prevent or combat the next pandemic or global health crisis and it will operate under the tandem principles of “Discover without Limits” and “Transform Discovery into Practice.”

The Global Center will reside in 400,000 square feet of newly constructed research space housing state-of-the-art laboratories and technologies. Cleveland Clinic’s international clinical care footprint provides a large, growing, and diverse patient population giving our research teams access to tens of thousands of unique biological samples through the centralized Cleveland Clinic Bio-Repository. Furthermore, the Discovery Accelerator, a newly established partnership with IBM Research, will leverage high-performance computing using hybrid cloud, artificial intelligence (AI), and quantum computing technologies to empower and accelerate big data research. The newly established Center for Therapeutic Discovery provides a full-scale drug discovery effort to identify new drug targets and therapies.
Cleveland Clinic is pleased to be an equal employment/affirmative action employer: Women/Minorities/Veterans/Individuals with Disabilities are encouraged to apply.
We are a smoke/drug free environment.