



CENTER FOR HUMAN GENETICS

Software Engineer/Systems Architect:

Vast quantities of genomic data are being generated that individually and/or in aggregate can improve almost every aspect of clinical care, enabling early accurate diagnoses and precise interventions. High-throughput genome sequencing in medicine and metagenomics is undoubtedly a major driver of scientific innovation. Many rare Mendelian disorders can be cured by advances in genetic and viral engineering, while the progression of more complex age-associated complaints may be predicted and prevented. The UF Center for Human Genetics' mission is to generate molecular knowledge, decipher, disseminate, synthesize and apply it, to fundamentally improve upon the human condition.

The Center is searching for a Software Engineer/Systems Architect to contribute to front-end and back-end systems to store clinical, genomic and other healthcare related data, including ClinSeq and Illumina TruSight produced datasets, and manage and design data storage pipelines for data collected during patient care to advance UF's clinical genetics research capacity. The position is supervised by Dr. Matt Farrer, an internationally recognized neurogeneticist and genomic researcher whose team has contributed extensively to many of the leading discoveries in this field.

The applicant will work with a team of dedicated software engineers, interface with cloud-based data storage providers, systems architects, and service providers such as Amazon Web Service and BC Platforms to develop integrated data networks for storage, retrieval and analysis of large-scale and whole genome and whole exome datasets. The ideal candidate will have a basic understanding of bioinformatics or the capacity to learn computational biology principles rapidly, and will collaborate with data scientists and the University's research computing staff regularly to organize, interpret and deliver data in clinically meaningful and operational ways. The applicant will be asked to design, build, and implement IT solutions for immediate applications in clinical care and research. Their efforts are to further engage complementary expertise in the UF medical community, its medical geneticists and human genomic scientists, information technologists, biologists and educators. The candidate will have the opportunity to contribute to existing software applications and develop new database-driven web applications and script utilizing SQL, NoSQL, JAVA, Python, JavaScript, AngularJS, Vue.js, and Bootstrap, and other commercial and academic software applications including ClinSeq and Illumina TruSight.

The University of Florida is the state's largest university with ~50,000 students, 16 academic colleges, over 150 research centers and institutes, and the largest AI supercomputer in the US. The main campus in Gainesville, also known as the 'Tree city' given its extensive arboreal forests, is a ~1.5 hour drive from the beach and 2 hours to several major cities including Tampa, Jacksonville, and Orlando. Gainesville boasts 8 state parks, more than 100 miles of trails for biking, birding and hiking, and numerous freshwater springs and rivers. Its warm climate, exotic location, and wildlife, make it a destination for nature enthusiasts. UF is a top-tier research institution which ranked 7th (tied) among the nation's top public universities and #34 among all universities (U.S. News & World Report 2020). UF Health is Florida's premier healthcare system.

UF UNIVERSITY OF
FLORIDA



For more information about the position email Dr. Rebecca Lazensky at:

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