

## UW HEALTH JOB DESCRIPTION

<b>Bioinformatics Scientist</b>			
<b>Job Code:</b> 530027	<b>FLSA Status:</b> Exempt	<b>Mgt. Approval:</b> K. Schliesman	<b>Date:</b> May 2024
<b>Department:</b> Clinical Lab – Molecular Diagnostics		<b>HR Approval:</b> S. Whitlock	<b>Date:</b> May 2024
<b>JOB SUMMARY</b>			
<p>The Bioinformatics Scientist will be responsible for programming bioinformatics pipelines for genomics and Next Generation Sequence (NGS) testing in clinical diagnostics and will support clinical operations and lab informatics systems, using on-premises and cloud computing platforms. The successful candidate is expected to have a strong background in programming and a disciplined approach to maintaining the highest standards of data validation and governance with the application of software development best practices. This individual will be responsible for project management, data delivery and communication of results. Other responsibilities include research and development within the clinical lab by preparing data sets and analyzing them using data science techniques including the ability to present findings as needed.</p>			
<b>MAJOR RESPONSIBILITIES</b>			
<ul style="list-style-type: none"> <li>Implements and validates bioinformatics tools and pipelines for clinical NGS test development.</li> <li>Develops, evaluates, adapts, validates, and implement software to identify and minimize gaps in NGS variant calling and annotation for optimal patient care.</li> <li>Participates in optimization of NGS data review and assists in both bioinformatics workflow and variant interpretation to create reports compatible with the Lab Information System.</li> <li>Ensures appropriate archiving of data, while creating methods for retrieval of archived data for future evaluation and quality assurance needs.</li> <li>Ensures compliance with CLIA/CAP requirements and adheres to HIPAA regulations for transactions, security, and confidentiality.</li> <li>Participates in all testing phases associated with applications during implementation and upgrade deployments.</li> <li>Participates in the evaluation of future hardware and software acquisitions.</li> <li>Acts as a liaison with UW Health clinical services commercial vendors and UW Health IS as related to molecular bioinformatic analyses and security.</li> <li>Collaborates with other software developers, IS teams, applications staff and users of information systems to evaluate, plan, design, develop, test, implement, and maintain application development efforts and reports.</li> <li>Works with laboratory director, pathologists, laboratory professionals, and other scientific members to optimize and validate new analytical tools and processes.</li> </ul>			
<b>JOB REQUIREMENTS</b>			
Education	Minimum	Bachelor of Science in a field related to Biological Sciences	
	Preferred	Master's Degree or PhD in the field of Biological Sciences with an emphasis on bioinformatic analyses	
Work Experience	Minimum	Five (5) years of training experience or professional work experience in a research laboratory or a service involved in genomics or bioinformatics	
	Preferred		
Licenses & Certifications	Minimum		
	Preferred	Bioinformatics Certification	
Required Skills, Knowledge, and Abilities		<ul style="list-style-type: none"> <li>Effective communication, interpersonal, and negotiating skills</li> <li>Demonstrated ability to work independently and as part of a team</li> <li>Demonstrated proficiency with command-line operating systems, programming languages and bioinformatic software packages</li> <li>Understanding of or experience with laboratory genomics workflows and CAP regulatory requirements</li> <li>Proficiency in one or more programming languages such as Python, Java R or bash scripting</li> <li>Familiarity with at least one database language such as MySQL, Oracle</li> <li>Experience with cloud computing</li> </ul>	
<b>AGE SPECIFIC COMPETENCY (Clinical jobs only)</b>			
Identify age-specific competencies for direct and indirect patient care providers who regularly assess, manage and treat patients.			
<b>Instructions:</b> Indicate the age groups of patients served either by direct or indirect patient care by checking the appropriate boxes below. Next,			
	Infants (Birth – 11 months)		Adolescent (13 – 19 years)
	Toddlers (1 – 3 years)		Young Adult (20 – 40 years)

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Preschool (4 – 5 years)	Middle Adult (41 – 65 years)					
School Age (6 – 12 years)	Older Adult (Over 65 years)					
<b>JOB FUNCTIONS</b> Review the employee's job description and identify each essential function that is performed differently based on the age group of the patient.						
<b>PHYSICAL REQUIREMENTS</b> Indicate the appropriate physical requirements of this job in the course of a shift. <i>Note: reasonable accommodations may be made available for individuals with disabilities to perform the essential functions of this position.</i>						
<b>Physical Demand Level</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 33%; padding: 5px;">Occasional Up to 33% of the time</th> <th style="width: 33%; padding: 5px;">Frequent 34%-66% of the time</th> <th style="width: 33%; padding: 5px;">Constant 67%-100% of the time</th> </tr> </table>	Occasional Up to 33% of the time	Frequent 34%-66% of the time	Constant 67%-100% of the time		
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<b>Other</b> - list any other physical requirements or bona fide occupational qualifications not indicated above:						

Note: The purpose of this document is to describe the general nature and level of work performed by personnel so classified; it is not intended to serve as an inclusive list of all responsibilities associated with this position.