


Job Description		
Title Senior Application Programmer		
Department Research and Development and Systems and Informatics	Reports to: Vice President, R&D and Head of Systems & Informatics	
	Supervises: No	
Effective Date: January 3, 2018	<i>Page: 1 of 3</i>	FLSA: Exempt

Position Overview


Under the direction of the VP Research & Development and the Head of Systems & Informatics, the Senior Application Programmer is responsible for design and development of complex software applications related to experimental workflows, data management and analysis at Pierian Biosciences. In this role, you will make significant contributions to the design and development of state of the art software applications for laboratory and analysis workflows. This position requires the individual to also serve as a staff specialist on one or more experimental systems and is responsible for the entire life cycle of an application including analysis, coding, testing, and documentation. The Sr. Application Programmer will apply significant professional experience in IT and computer programming to the development of multiple predictive clinical diagnostic tests. He/she is expected to be an expert in all assay platforms as well as being capable of initiating new software projects. The Sr. Application Programmer will be called upon to provide guidance and project direction to other staff members on the development team, and will serve as an expert resource within the company on the functionality of their assigned system(s).

Essential Job Functions

- Work closely with other software engineers, research scientists, lab staff, and computational scientists to identify and implement key automation and visualization tools
- Design, develop, integrate, and deploy related application components including front end development, server-side development, and system integration
- Provide application support for testing, debugging and applying incremental improvements in working laboratory environments, both in research and regulated environments
- Provide training, and troubleshooting for applications deployed to a diverse user base
- Comply with and help evolve process methodologies including issue tracking, source control, unit testing and coding standards
- Make recommendations for process improvements and new technologies that will make a positive impact on the laboratory and analysis workflow
- Be the point person for various computational needs that arise on pre-clinical and clinical stage projects run by cross-functional teams consisting of research biologists, instrumentation experts, biostatisticians and clinical scientists
- Learn image analysis algorithms and identify optimal metric for quantification of fluorescence both at the single cell and well levels
- Integration of data with all platforms
- Data analysis related to assay optimization and biomarker discovery

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- Contribute to the development and practice of strong software engineering practices (e.g. version control, code reviews, testing, and documentation) at Pierian Biosciences
- Utilize structured programming techniques to deliver a high-quality product.
- Lead evaluation and analysis of data related to application development in order improve performance of future versions

Application Programming and Software Development:

- Develop programming code and software modifications using appropriate languages and tools to provide responsive and innovative solutions, and new functionality in enterprise-wide and/or complex specialized systems
- Research, design, and develop prototypes and technologies to demonstrate utility, productivity enhancements, and cost savings
- Write documentation to provide user support for programs and for production/operating procedures
- Develop, maintain and support associated databases

System Analysis and Development:

- Analyze user system and application needs, determine and evaluate potential solutions, develop system specifications and requirements, and design application programs to meet the requirements
- Design integrated solutions which may include applications, databases, networks, and related systems
- Research, analyze and evaluate current technical trends, emerging technologies and standards, new software functionality, and alternative software solutions to determine applicability and viability

Database Design and Development:


- Structure, implement, and maintain database systems.
- Establish policies, standards and procedures to ensure useful and readily accessible data
- Design database systems and programs
- Analyze data requirements, develop and document data dictionary, and develop data models

Education/Experience Requirements

- Minimum of Bachelor's degree in information technology, computer science or related field; Master's degree a plus
- Minimum of 5 years' experience in related positions and with complex projects
- Strong programming skills using one or more of JavaScript, Python, Ruby, Java or similar languages

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- Programming experience in Windows and Linux environments
- Experience developing full-stack web and/or Java applications
- Experience in Java (Spark Java), Hibernate, Python(Django) or Ruby(Rails) frameworks
- Experience with Google Polymer using REST API
- Experience with JUnit for unit testing and Maven for package management
- Experience with Venus 2 Hamilton Robotics is a plus
- Strong understanding of relational and non-relational database systems (PostgreSQL), HTML, CSS and software testing methodologies
- Significant understanding of and proven working background in development of algorithms, analytical techniques and statistics for assay development and diagnostic testing is required
- Knowledge of software engineering best practices and OO design principles
- Any biotech industry experience or working with laboratory tracking systems is a plus

Knowledge, Skills, and Abilities (KSAs)

- Comfortable in a fast-paced small company environment with minimal direction and able to adjust workload based upon changing priorities
- Ability to generate respect and trust from staff, leadership, and external constituencies
- Strong interpersonal and communication skills; the ability to effectively interface with senior management and staff
- Ability to think critically, have mature judgment, independently make decisions; also utilize available resources to meet company needs and work effectively with cross-functional teams and internal resources
- Leadership, integrity and ability to take initiative (self-starter)
- Ability to craft a great user experience

NOTE: This job description is not intended to be all-inclusive. Employee may perform other related duties as negotiated to meet the ongoing needs of the organization. Pierian Biosciences is an Equal Opportunity Employer with a strong commitment to the achievement of excellence and diversity.