**Duke University School of Nursing**
**Job Description**
**HR Title:**          **Analyst Programmer, Sr**
**Working Title:**     **Lead Backend Programmer**
**Job Code:**          **1464**
**Job Level:**         **74**
**Updated:**           **2/2023**


## General Purpose

The role is responsible for leading the technical design, and development activity related to backend web services (e.g., tams-api, cps-api…).  This includes: coding practices; technology and tool selection; automated database creation, hydration, monitoring and maintenance; and external APIs.

This role will also be responsible for contributing to frontend development as needed.

This role is for a senior-level full-stack JavaScript web developer.


## Supervisor

This position reports to the TAMS Director of Software Development.


## Essential Duties

1. Design the database and data structures needed for TAMS.  This includes the database tables, views, indices, etc., all import/export middleware for transferring data between disparate systems, and direct connections for secure integration with designated 3$^{rd}$ party systems.
2. Serve as technical team leader for other application development staff for all feature requests, bug fixes and workload management for standard releases.  Perform code reviews and technical training when needed.  Develop processes to track development staff progress and measure productivity/efficiency.
3. Design data access for support and maintenance of TAMS data structures and databases, ensuring data integrity.
4. Develop production-ready application features end-to-end in accordance with departmental coding standards.
5. Modify and maintain web applications to include implementation, revisions and continued operations of same; prepare estimates of time and resources required for feature delivery.
6. Prepare and maintain documentation to effect implementation and continuing operation of web applications
7. Test and debug new apps to verify their accuracy and completeness; maintain and revise existing apps to ensure operating proficiency or to adapt apps to new requirements.
8. Assist in developing specifications to include system narratives, use case analysis, UML diagrams and such other documentation as deemed necessary by management for the successful completion of a given project.
9. Contribute to the definition of coding standards.
10. Research and remediate security vulnerabilities.
11. Perform other related duties incidental to the work described herein.


## Requirements

Work requires a Bachelor's degree in mathematics, computer science or equivalent

coursework or technical training.

Work requires five years of related programming or analytical experience with knowledge of several computer languages or programs and/or knowledge of the specialty area for which the position is providing support.

OR AN EQUIVALENT COMBINATION OF RELEVANT EDUCATION AND/OR EXPERIENCE

### Skills

- High proficiency with the Node ecosystem, to include Express and Sequelize.
- Proficiency in front-end web development technologies (react, redux, HTML, css, javascript).
- Proficiency in web applications development and maintenance in database development
  - Developing and maintaining relational database systems in MySQL, Oracle and/or Microsoft SQL Server.
- Experience with agile development methodologies
- Experience with Node Passport preferred
- Ability to learn new technologies quickly and eagerly.