***This old UMB job description was created between 2000 and 2014 and is being provided as a template or guide in the preparation of a current job description. The essential functions are general in nature and may not accurately depict the duties of a specific unit. Managers are encourage to update and provide specific duties that are applicable to work being performed in the unit.***

Job Title: **IT Bioinformatics Software Engineer, Lead**

Job Family: Information Technology

Sub Family: IT - Applications - Bioinformatics

**Job Summary:**

Leads projects intended to develop software or design database to accomplish specific scientific or analytical objective based on the requirements specified by managers, directors and scientists. Develops tools, protocols or structured methods for organizing or presenting data from analytical or diagnostic systems.

**Essential Functions:**

* Lead the design, development and maintenance of software based on the requirements specified by managers, directors and scientists.
* Lead the design, development and maintenance of analysis pipelines using the tools and systems available.
* Identify, evaluate, and incorporate bioinformatics applications and computer algorithms by studying pertinent literature.
* Provide technical leadership for large-scale, long-term projects including requirements capture, software design, design documentation, design presentation and review, time estimation, implementation and coordination. Provide end user training.
* Train, mentor and evaluate less experienced engineers in tools, database architecture, software architecture, analysis methods and pipelines.
* Manage genomics related data generated and maintained at IGS including loading and querying data from database systems, writing scripts to transform the data to necessary formats, and downloading and transforming genomic data maintained in public data repositories.
* Ensures basic quality assurance of data and software generated by IGS by designing and implementing test methodologies.
* May supervise small teams of Bioinformatics Engineers and Analysts.
* Performs other duties as assigned.

**Minimum Qualifications**

Education: Bachelors in Bioinformatics, Computer Science, Computer Engineering or related field.

Experience: Eight (8) years of experience in bioinformatics tool use, software development, or analysis of biological data. Two (2) years serving as technical lead and four (4) years project management experience.

Master's degree in Bioinformatics, Computer Science or related field may be subst

Supervisory:

Licensure/Certification:

Other: No subsitution of experience for minimum education requirement.

**Knowledge, Skills, and Abilities**

*Managers may provide prefered knowledge, skills, and abilities as necessary.*

Job Code: E0754H

SOC Code: 151132 IPEDS: Computer

EEO6 Code: Professional State Code: 9749505

USM eCode: E40077 AAP Code: 3A