***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: **Manager, IT Bioinformatics Software Engineer**

Job Family: Information Technology Sub Family: IT - Applications - Bioinformatics

**Job Summary:**

Manages the development and maintenance of software that drives, interacts with, or extracts data from complex engineered systems, such as genomic sequencing systems. Manages projects intended to develop software or design database to accomplish specific scientific or analytical objective of the scientist.

**Essential Functions:**

* Manage the design, development and maintenance of software based on the requirements specified by directors and scientists.
* Manage the design, development and maintenance of analysis pipelines using the tools and systems available at IGS.
* Identify, evaluate and incorporate bioinformatics applications and computer algorithms by studying pertinent literature.
* Provide technical and personnel leadership for multiple large-scale, long-term project including requirements capture, software design, design documentation, design presentation and review, project planning and implementation including time estimation, implementation and coordination. Provide end user training for such projects.
* Train, mentor and evaluate senior and lead 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.
* Ensuring basic quality assurance of data and software generated by IGS by designing and implementing test methodologies.
* Supervise teams of Bioinformatics Engineers and Analysts.
* Performs other duties as assigned.

**Minimum Qualifications**

Education: Bachelors in Information Technology, Computer Science, Systems Administration, Computer Engineering or a related field.

Experience: Ten (10) years of experience in bioinformatics tool use, software development, or analysis of biological data with six (6)years of project Management experience.

Supervisory: Four (4) years of supervisory experience.

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: E0755I

SOC Code: 151121 IPEDS: Computer

EEO6 Code: Professional State Code: 9445011

USM eCode: E24077 AAP Code: 3A