

position description

Date: May 19, 2020

Title: Analyst Programmer 2

Job ID: #8372

Department: Population and Quantitative Health Sciences

School: School of Medicine

Location:

Supervisor Name and Title: William S. Bush, PhD

POSITION OBJECTIVE

Under general supervision and as a team member, formulate and define system scope and objectives through research and fact-finding to develop or modify moderately complex applications. Additionally, support troubleshooting, problem identification and resolution.

The objective of this position is to further develop existing analysis workflows and pipelines within “big data” frameworks, and to package and deploy these products to cloud environments. Key responsibilities of this position are 1) establish and manage cloud environments for laboratory personnel and external collaborators, 2) test and debug packaged software within cloud environments to support key analyses, 3) provide extensive documentation and coordinate efforts with existing lab personnel and external collaborators to ensure seamless transitions of newly developed software into the cloud environment. Through these responsibilities, this position supports the ability of laboratory members and national collaborators to conduct rapid, large-scale genomic analyses of Alzheimer’s Disease datasets with the goal of identifying new contributing factors and potential interventions for the disease.

ESSENTIAL FUNCTIONS

1. Develop and execute plans to transition applications from local cluster to cloud environments. Through interactions with lab personnel, develop and understanding of existing software infrastructure and necessary components and dependencies. Create a new instance of a cloud environment that mirrors our local cluster configuration, and deploy custom software within this instance (30%)
2. Test, debug, modify and document moderately complex systems and troubleshoot issues that arise from migrations to cloud environments. (30%)
3. Prepare detailed specifications and documentation for developed cloud environment. This will include instructions for accessing developed software for non-expert users, and may include blog posts and other avenues accessible to novice users. (25%)
4. Interact with lab members and external collaborators to support use and further development of the cloud-based platform. (10%)

NONESSENTIAL FUNCTIONS

Manage laboratory data storage and computational resource usage. (5%)

Perform other duties as assigned. (<1%)

CONTACTS

Department: Daily contact with Principal Investigator and other Faculty to discuss ongoing projects and needs.

University: Occasional contact with UTech administrators and staff to manage computational resources and to understand system configurations.

External: Moderate contact with research collaborators to provide updates on project status and discuss implementation strategies.

Students: Moderate contact with students and trainees to establish use-case scenarios and to understand the basics of software function.

SUPERVISORY RESPONSIBILITIES

This position has no direct supervision of staff employees.

QUALIFICATIONS

Experience and Education: 2 years related experience and Associates degree in related field OR 0 years of experience and Bachelor's degree in related field required.

REQUIRED SKILLS

1. Accountability/integrity, customer/quality focus, diversity/maturity, flexibility/receptivity, interpersonal relations, leadership/supervision, planning/organizing, problem solving, project management, self-development and teamwork.
2. Proficiency in Python preferred.
3. Working knowledge of SQL and basic database operations.
4. Proficiency with Linux/Unix operating system and basic shell functions and scripting.
5. Knowledge of cloud computing preferred.
6. A willingness to learn new technologies and perseverance in dealing with technological challenges.
7. Good communication skills and the ability to interact effectively with colleagues, supervisors and collaborators.
8. Ability to meet consistent attendance.
9. Ability to interact with colleagues, supervisors, and customers face to face.

WORKING CONDITIONS

General office environment. The employee will perform repetitive motion using computer mouse and keyboard to type. Limited manual dexterity required. Work requires negligible physical exertion. Little or no exposure to hazards. Occasional travel to academic meetings may be required.