Job Framework
The structure consisting of job functions, families, series, grade levels, and salary ranges that provides a strong foundation to describe the different kinds of work undertaken at the University. Within the framework there are the following categories that roll up into the framework.

Job Function
A collection of similar, related Job Families that are represented at the University (e.g.: HR, Finance, R&D, IT)

Job Family
A grouping of similar, related jobs within a Job Function. (e.g.: IT Security, CI)

Job Series
A grouping of similar, related jobs within a Job Family that have similar tasks and focus, each requiring different skill levels and varying responsibilities. (e.g.: Systems Professional)

Job Matrix
A visual representation of a Job Series

Job
A grouping of similar, related tasks and responsibilities performed by one or more individuals. (e.g.: IT Security roles and Identity and Access Management roles)

Job Description
An accurate summary of the work performed by the job including the core duties, qualifications and skill level.

Job Code
An alphanumeric character identifier that corresponds to a particular standard job description for the purpose of mapping the job to our information systems.

Job Title
Label for job code, which Subject Matter Experts will help to name. (e.g.: Systems Professional I, II, III)

Business Title
The “working” title, determined locally based on school/unit hierarchy. (e.g.: System Admin, System Engineer, ...)

Grades: differentiating roles
Grade 1: 1s do. At a basic level. Entry level doer.
Grade 2: 2s do at a more advanced level. More complex work, expected to independently identify and resolve problems.
Grade 3: 3s are expert doers—design, develop, small-m manage (not people, necessarily, but projects, teams, programs)
Grade 4: 4s are technical leads or entry managers—top tier talent, more collaborative, big-picture focused, has a broad view multiple CI tracks in mind.
Grade 5: 5s are technical experts or senior managers—set the direction for the future of the unit, way less emphasis on doing and more on leading collaborations and directing strategy
Grade 6: 6s are entry level directors - manage multiple teams and with some control of investments
Grade 7: 7s are senior directors - take full responsibility for strategy, professional staff and CI investments
Grade 8: 8s have one of the pinnacle responsibilities at their institution, which encapsulates CI with a overlap of other strategic functions within the institution.
Job Code: [Job Code]

Core Duties

- Knowledge of Linux systems administration
- Continue building a diverse set of systems administrative skills
- Design and implement robust and secure IT solutions within a fast-paced and generational compute and/or data-intensive research problems

Basic Qualifications

- Minimum of 5 years' relevant post-secondary education OR relevant work experience including a combination of these two.
- Specialized knowledge in a specific technology
- Demonstrated team performance skills, service mindset approach, and the ability to act as a trusted advisor

Development:

- Participate in running CI systems at scale
- Become a key contributor to multiple projects simultaneously.
- Will lead trainings on specific areas of CI systems engineering
- Regularly contribute best practices documentation, present at conferences, or contribute to publication of the CI ecosystem

Additional Qualifications and Skills

- Will mentor junior staff
- Regularly review process and procedure for systems management for systems professionals and teams of individual contributors and/or managers
- Define and track employee performance metrics to ensure a highly functional team
- Help make strategic decisions around the deployment of CI solutions
- Set the budget for the maintenance and operational costs and future CI development

Management:

- Set the strategy around monitoring and maintaining the health and integrity of CI systems at scale
- Lead and task employee performance metrics to ensure a highly functional team of individual contributors and/or managers
- Provide feedback to teams and projects along side of research programs. Will be a key contributor to multiple projects simultaneously.
- Provide expert operational knowledge in the configuration, testing, and debugging of CI systems at scale that provides performance improvements of critical research endeavors.
- Develop enhancements to maintain the integrity of CI systems at the leading edge of current technologies. Lead cross-functional help teams, projects along side of research programs across multi-disciplinary areas.
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Job Title: Software/Data Professional I

Business Title(s): (e.g. Research Software Engineer (RSE), Data Scientist)

Grade Level: 3 Exemption: Exempt

**Core Duties**

**Software Development:**
- Help maintain well-engineered software that supports and enriches research productivity and reliability. Curate software development and data services to keep up with the pace of complex research problems. Set strategic decisions around the investments in sustainable software engineering and data management practices.
- Lead a team of software/data professionals and researchers in the design, plan, and implement well-engineered software and data services that enriches research productivity and reliability.
- Collaboratively with others, lead a team of software/data professionals and researchers in the design, plan, and implement well-engineered software and data services that enriches research productivity and reliability.

**Technical Consultation:**
- Design, plan, and implement well-engineered software and data services that enriches research productivity and reliability.
- Engage with on-demand research and development services to meet researchers needs.
- Recruit and develop a team of software/data professionals that can keep up with the pace of complex research problems.

**Documentation/Training:**
- Provide regular communications on large-scope project updates to internal and external PIs/stakeholders.
- Assist in sustainability efforts and develop skills for multifaceted scope of work and timely project plan with regular milestones.
- Set the standards for internal code design and development guides for future contributors.

**Partnership/Collaboration:**
- Lead the design, planning, and implementation of well-engineered software or data analysis that enriches research productivity and reliability.
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**Management:**
- Define and track employee performance metrics to ensure a highly functional and effective team.
- Lead the design, planning, and implementation of well-engineered software or data analysis that enriches research productivity and reliability.
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**Additional Qualifications and Skills**
- Will promote trainings for staff in broad area of software engineering and data management practices.
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Job Title: Software/Data Professional II

Business Title(s): (e.g. Sr RSE Manager, Director of Data Science)

**Core Duties**

**Software Development:**
- Build advanced curriculum and teach workshops for researchers on sustainable software engineering and data management practices.
- Lead a team of software/data professionals and researchers in the design, plan, and implement well-engineered software and data services that enriches research productivity and reliability.
- Engage with in-scope research and development services to meet researchers needs.

**Technical Consultation:**
- Recruit and develop a team of software/data professionals that can keep up with the pace of complex research problems.
- Develop internal code design and development guides for future contributors.

**Partnership/Collaboration:**
- Lead the design, planning, and implementation of well-engineered software or data analysis that enriches research productivity and reliability.
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**Management:**
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Job Title: Software/Data Professional III

Business Title(s): (e.g. Principal RSE, Principal Data Scientist)

**Core Duties**

**Software Development:**
- Build and maintain aspects of version controlled software code and custom data processing pipelines for complex environments.
- Build understanding with research activities through regular engagements.
- Establish partnerships with other Academic, Library, and Research leadership.

**Technical Consultation:**
- Lead the design, planning, and implementation of well-engineered software or data analysis that enriches research productivity and reliability.
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**Management:**
- Build deep understanding with specific research activities through regular engagements.
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**Additional Qualifications and Skills**
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<td><strong>Core Duties</strong></td>
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<tr>
<td>- Proven record of engaging with academic researchers</td>
<td>- Job Code:</td>
<td>- Define and track return on investment changes to CI services under your purview</td>
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<td>- Relevant work experience or doctorate and 3 years of relevant work experience</td>
<td>- <strong>Communications/Reports:</strong></td>
<td>- Regularly provide reports to stakeholders metrics regarding usage, growth, and changes to CI services.</td>
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<td>- Preferred education/academic experience: Master's degree and 5 years of experience including a combination of these two.</td>
<td>- <strong>Management:</strong></td>
<td>- Build and maintain the relationship with various stakeholders (professors, researchers, staff, government agencies, vendors, partners).</td>
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<td>- <strong>Leadership:</strong></td>
<td>- Manage team resources, time, and projects to reinforce the need for advanced cyberinfrastructure on a national scale.</td>
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<td>- <strong>Partnership/Collaboration:</strong></td>
<td>- Focus on near-term operational effectiveness and sustainability on multiple CI services.</td>
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<td>- <strong>Communication/Partners:</strong></td>
<td>- Develop mission, vision, and strategy for local CI services and aligning near-term investments.</td>
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<td>- Defined and track employee performance metrics to ensure a highly functional cyberinfrastructure on a national scale.</td>
<td>- Help lead efforts towards the professionalization of CI (i.e., research computing and data services).</td>
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<td>- Develop and maintain relationships with institutional governance board.</td>
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<td>- Regularly engage with other Academic, Library, and Research leadership on institutional-wide strategy and investments.</td>
<td>- Project budget and request for funding for the CI investments.</td>
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<td>- Regularly engage with other Academic, Library, and Research leadership on institutional-wide strategy and investments.</td>
<td>- Ensure sustainability of resources by forming competitive partnerships for project budget changes to future investments in CI professionals, maintenance, and operational costs.</td>
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**Grade Level:** 6

**Exemption:** Exempt

**Effective/Revision Date:** April 2019