
MIT Job Description

Job Title:	Position Title: Research Computing Specialist
Reports to: Associate Director of Research Computing	% Effort or Wkly Hrs: 40 Hrs/Wk
Department: Sloan Technology Services	Prepared by: Wesley Harrell
Date: 9 May, 2016	

Position Overview:

The Sloan School of Management is seeking an analytical and creative thinker to consult with and support the Sloan community with their world-class research projects. The Research Computing Specialist serves as the lead statistical consultant at the Sloan School and assists scholars in effectively utilizing available research technology resources. The day to day responsibilities includes providing expert advice in statistics, programming and the use of research computing and HPC resources. She/he also brings to the research community knowledgeable council in the use of many external data sets and in identifying and employing situation appropriate quantitative and qualitative research methods.

Principal Duties and Responsibilities (Essential Functions):**

1. Serve as the primary research computing consultant for Sloan faculty and researchers.
 - Act as the primary statistical consultant for the Sloan research community.
 - Provide guidance on the effective use of mathematical and statistical software, including MATLAB, Stata, Mathematica, SAS, SPSS and others.
 - Provide support and programming assistance for popular research programming languages such as R, Julia and python
 - Provide guidance on the use of qualitative research software including AtlasTI, NVivo, MaxQDA and others.
 - Provide guidance on the effective use of experimental software and data collection platforms, including Qualtrics, Amazon Mechanical Turk, zTree, SoPHIE, and others
 - Work with the Associate Director in providing training opportunities, especially covering commonly used mathematical and statistical packages, by bringing in vendors or other specialists from MIT or the wider research community, or by personally teaching classes.

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- Work with other social science based consultants and specialists, both internally and externally, such as Harvard IQSS Data Science Services staff, to provide effective instructional and consulting services to the Sloan community.
 - Create and maintain documentation, user guides, FAQs
 - Provide instruction and/or consultation on use of software and cluster technology
 - Ability to lead/mentor student interns
2. Assist faculty, researchers and staff with dataset maintenance, procurement and usage
- Serve as a representative for Wharton Research Data Services (WRDS). Help manage accounts and help the community use the service.
 - Assist the Associate Director in managing subscriptions and user access to other datasets.
 - Assist researchers with managing and formatting research data sets through cluster resources, WRDS and on local machines
 - Work with the Associate Director, the Dewey Research Librarian and faculty in the identification and acquisition of new research data sets.
3. Other duties as needed or required.

Supervision Received:

Supervision is provided by the Associate Director of Research Computing. Regular meetings will be held, but employee is expected to perform duties with minimal supervision.

Supervision Exercised:

No direct reports, but employee may be required to coordinate/mentor student research computing interns

Qualifications & Skills:

REQUIRED:

- **Master's degree in mathematical, statistical or similar field.**
- 3-5 years experience supporting academic or commercial research
- Demonstrable knowledge of one or more of the following applications:
 - Stata, SAS, Matlab, Mathematica, Gauss, AtlasTI

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- Demonstrable knowledge of one or more of the following programming/scripting languages:
 - R, Python, Julia, C, Bash
 - Experience with Data Science concepts and practices, as well as experience with common data analytics platforms, such as Hadoop, Spark and others.
 - Ability to assist researchers with quantitative and qualitative research methodologies and technologies.
 - Must be a self-starter with good interpersonal skills.
 - Must be motivated to learn new technologies
 - Excellent oral communications skills. It is very important that the candidate demonstrate they can explain complex concepts and present information to individual researchers and small groups, such as in a classroom setting.
 - Excellent written communication skills, including the ability to create clear accurate documentation of processes, preparing training materials, and documenting customer needs and requirements.

PREFERRED:

- PhD in mathematical, statistical or similar field
- Knowledge of financial and economic data sets such as those available through WRDS
- A working knowledge of Bloomberg data terminals/services
- Working knowledge of cluster technologies (SLURM, Grid Engine, HTCondor, etc) and parallel computing
- Experience with common relational databases such as MySQL, Postgres, or SQLServer
- Experience with NoSQL databases, such as Mongo and Cassandra
- Experience working with faculty and students at a research university.
- Experience working in a team-oriented, collaborative environment

** To comply with regulations by the American with Disabilities Act (ADA), the principal duties in job descriptions must be essential to the job. To identify essential functions, focus on the purpose and the result of the duties rather than the manner in which they are performed. The following definition applies: a job function is essential if removal of that function would fundamentally change the job.