Non Union Tech Job Opportunity

BUSINESS TITLE: Data Scientist & Lab Manager
EMPLOYMENT GROUP: NUT Technicians & Research Assistants
JOB FAMILY: RATNU Non Union Research/Technical
JOB CODE: 500605 Research Asst/Tech 4

JOB SUMMARY

The Land Use and Global Environment (LUGE) Research group at the University of British Columbia is seeking a data scientist & lab manager to support their research on global sustainable agriculture and food security. Our research group is broadly interested in addressing the challenge of improving food security for 9-10 billion people while also making the food system more environmentally friendly and climate resilient. We do this by developing and analyzing global and regional data sets and models of agriculture and the food system. See ramankuttylab.com for more information about our research program.

This position works independently on duties that include compiling, cleaning, wrangling, visualizing, managing, and analyzing large amounts of tabular and geospatial data; and working with spreadsheets, databases, GIS, and programming in bash, R, and Python. In a more limited capacity, this position assists with general lab management, including maintaining hardware and software, maintaining website, ordering lab supplies, organizing meetings, preparing budgets, proposal writing, etc.

ORGANIZATIONAL STATUS

This position reports directly to a faculty member in the UBC School of Public Policy and Global Affairs. The incumbent will work independently and with a team of students and researchers providing data science support, general lab management and oversight.

WORK PERFORMED

The Data Scientist & Lab Manager will have three main responsibilities: (1) data science, (2) hardware and software maintenance, and (3) general lab management.

1. Data Science (75%)
    - Compile, clean, wrangle, visualize, manage, analyze, and curate large data sets using spreadsheets, object oriented programming (R & Python) and GIS software to conduct spatial analysis
    - Perform spatial and temporal interpolation and extrapolation to create harmonized data products
    - Create data visualizations for public communication using web based technologies (e.g. Javascript, D3) and deploy and help manage existing websites for delivery of open geospatial data to the research community
    - Take responsibility for particular data-related research tasks to support the group's research, such as developing and curating novel data products
    - Compile, synthesize and analyze historical and current global agricultural census statistics
    - Develop, review, update and maintain global data of administrative boundaries (cadastral layers such as political boundaries e.g. municipal, federal, regional, etc.) using GIS, ensure consistency by using graph matching between administrative boundary data and tabular data
    - Use GIS for cartographic design to make maps that can be used to support publications public outreach activities

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2. Hardware & Software Maintenance (15%)
    - Assist with maintaining hardware and software for the research group, including server management

3. General Lab Management (10%)
    - Assist with general lab management, including ordering lab supplies, organizing meetings, assisting with budgets, supporting proposal writing, etc.

CONSEQUENCE OF ERROR

Exercises a considerable amount of judgment, responsibility, and initiative in determining work procedures and methods, and coordinating the work of the lab. Errors in judgement will reflect negatively on the researchers involved and the School.

SUPERVISION RECEIVED

Works independently under minimal supervision. Receives specific instructions only on unusual problems or on matters which depart significantly from established policy and procedure.

SUPERVISION GIVEN

This position will be required to supervise undergraduate students who will assist with compiling data, and prior experience will be an asset. The incumbent may have input into student selection and performance evaluation.

QUALIFICATIONS

Undergraduate degree in a relevant discipline or graduation from a technical college or institute. Master of Science degree in Environmental Science, Physical Geography, Earth System Science, Ecology, or Atmospheric Sciences, and with Data Science experience. Minimum of 3 years related experience or the equivalent combination of education and experience. The ideal candidate will have excellent quantitative and analytical skills, and some prior experience analyzing large-scale environmental data. Specific skills required will include ability to compile, clean, wrangle, visualize, and manage large amounts of tabular data; GIS; a solid foundation in applied statistics (i.e. regression analysis); and some basic familiarity with using remote-sensing based land cover classification data. The following software skills will be required: Microsoft Excel, QGIS, database management, and programming in bash, R, Python, Javascript and CSS/HTML, Candidates should have strong communication (spoken and written) and interpersonal skills, and the ability to work both independently and in a team environment. Interested candidates should submit the following to Navin.ramankutty@ubc.ca by Friday September 28th

(1) Cover letter outlining research interests and fit for the position;

(2) Curriculum vitae;

(3) Copies of latest transcripts (unofficial copies is sufficient);

(4) Names and contact address of 3 references;

(5) Reprints or samples of work, if available.