Technical Manager, Centre for Innovation in Information Visualization and Data-Driven Design (CIV-DDD), York University

Position Type
Contract — one year, with a possibility of renewal

Start Date
TBD

Hours
8:30 am to 4:30 pm, Monday to Friday

Salary
$60,000 to $70,000/per annum plus benefits

Closing Date for Applications
Posted until filled

Job Purpose
The Centre for Innovation in Information Visualization and Data-Driven Design (CIV-DDD) will establish a preeminent research hub for innovation and training in information and scientific visualization in Ontario, one that will be unrivalled in Canada for its equally strong footing in the sciences and the arts. Driven by the increasing complexity of data sets, the need for information data visualization is growing exponentially in scientific, social science, and humanities research, finance, and virtually all industries. The project responds to this need by combining existing regional research strengths to create and develop new methods and tools for data-driven design by establishing a centre of excellence in information visualization, which will result in new products and services as well as highly-trained, data-ready personnel for a variety of data-dependent industries including medical and bioinformatics industries, science and engineering industries, management and financial industries, culture and entertainment industries as well as heritage and educational industries.

The Technical Manager will be responsible for managing and maintaining all technical requirements of the research labs, including the planning, design, evaluation and implementation of the CIV-DDD technical facilities at OCAD University and York University, to ensure that the OCAD University and the York University CIV-DDD laboratories meet the requirements of the hosted research projects, and to enable CIV-DDD researchers in setting up their research projects. The position is responsible for establishing and maintaining highly secured networked connections and compatibility between OCAD University, York University and University of Toronto CIV-DDD affiliated labs. This position will hold an overview of the technical needs of CIV-DDD, and ensure that additional resources are deployed to laboratories making use of the discretionary technician budget.

In Year One the Technical Manager has a special responsibility for planning and overseeing the establishment of the CIV-DDD Research facilities and establishing protocols for its technical systems administration in close coordination with OCAD University’s IT Services department, the Research Office and the CIV-DDD Project Manager. The Technical Manager is responsible for the integration of these facilities into the laboratories at York University and as appropriate, University of Toronto. The Technical Manager is responsible for assisting CIV-DDD researchers with the use of hardware/software and other technologies, as appropriate through installation of resources, training, and the integration of research assistants and when needed and planned, hands on support. The
Technical Manager is responsible for technical supervision, training and quality control for the benefit of the multiple research projects of CIV-DDD. The Technical Manager will also be responsible for coordinating secure transfers of technical systems, data and research input and output between institutions and within research teams. The Technical Manager will work closely with the Project Executive Committee, the Project Manager and the project team, as well as faculty members at the Ontario College of Art and Design University (OCADU), York University, the University of Toronto, and other Faculties/Universities.

Funded externally, this appointment is for a contract of 1 year with extensions possible for the duration of the funding (5-years) and may be renewed.

**Major Duties include, but are not limited to:**

- Reporting to the Executive Committee of CIV-DDD, the Technical Manager is responsible for the day to day operations of CIV-DDD’s technical facilities.
- Tasked with establishing the OCAD University lab.
- Responsible for establishing and maintaining secure networked connections and compatibility between the OCAD U, York University and University of Toronto CIV-DDD affiliated labs.
- Keeps up-to-date with latest cutting edge technologies, and holds an overview of the technical needs of CIV-DDD and ensures that additional resources are deployed to laboratories making use of the discretionary technician budget.
- Coordinates in consultation with the CIV-DDD research directors and research team leaders, and key IT staff at all institutions the effective integration of systems and technologies of the lab with existing resources and recommends additional/restructuring of existing resources in support of the lab.
- Prepares under the Executive Committee, Research Lab Director and Project Manager’s guidance, technical information to assist with research project proposals and budgets for new funding opportunities.
- Supervises technical staff, including research assistants and students.
- Organizes skill training workshops for researchers and Highly Qualified Personnel (HQP).
- Provides technical support to researchers, including support for hardware and software applications.
- Prepares regular technical reports and coordinates meetings as required with the Project Manager and members of the Executive Committee and Scientific Steering Committee.
- Performs other related tasks such as filing sharing, data recovery, or resolving web based technical issues to support the CIV-DDD Research Lab and hosted research projects.

**Educational Requirements**
A Masters Degree in computer science is preferred, or a 4-year University degree in computer science, or an equivalent combination of education and experience. Additional qualifications or degree related to the technical operations of computing systems. Advanced degree an asset.

**Experience Requirements**
Experience in a post-secondary research environment, including managing the technical requirements of complex multi-institutional research teams and multiple projects; and experience in the management of technology-rich research spaces that may be set-up in multiple arrangements and used for technical demonstrations, industry information sessions and/or teaching.
Interpersonal and Technical Skills
Preference will be given to the candidate with knowledge of a comprehensive subset of the following skills:

- Programming: C and/or Java
- Operating Systems: Linux/Unix, Microsoft Windows, Novell, and/or MacOS
- Networking: IP based network routing/switching technologies; NAS/SAN network file storage and backup systems; IP multimedia network protocols including IP multicast, H.264 RTSP, RTP, RTCP and related codecs
- Scientific visualizations, animations, and statistical analysis Software: Dataplot, ParaView, Side Effects’ Houdini, Autodesk’s Maya, Virtual Director with V Maya (extended by NCSA), and/or Nett VR, etc.
- Knowledge of DataBases, and Data Analysis packages: Maple or Mathematica, SPSS, Matlab, Processing MAX/MSP, the Adobe Tool Kit; and Open Text OT
- Motion capture, User Interface and Sensor Hardware: Haptics user interfaces, 3D capture technologies, sensor technologies, coordination of mobile platforms, screen based technologies, immersive technologies and gaming, including the set-up of open source and community source platforms and application development and implementation, social media and collaboration systems
- Infrastructure Acquisition: Ability to evaluate hardware and software recommendations for purchase; create and maintain equipment inventory, and manage SW licenses, as well as maintenance and warranty agreements, including compliance with funding regulations
- Management: Proven ability to supervise technical staff, including research assistants and students
- Interpersonal skills and Technical Writing: Strengths in oral and written communication in order to coordinate the work of the OCAD U Lab with research partners, and institutional research teams. Ability to analyze and interpret complex material and write clear, concise reports

Application Process Details
Your complete application package must include a cover letter, résumé, and the names of at least three references.

Please ensure that “CIV-DDD Technical Manager” is quoted in e-mail subject lines and on all hard copy applications.

Only those selected for an interview will be contacted. Priority consideration is given to Canadian citizens and permanent residents in Canada. York University is committed to Employment Equity and encourages applications from all qualified candidates.

Applications should be submitted to
Hiring Committee
The Office of the Vice-President, Research & Innovation
Fifth Floor, York Research Tower
York University
4700 Keele Street
Toronto, Ontario, Canada, M3J 1P3

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