Postdoctoral Fellow Position (CARE Project)

focus in Data-Science, Big Data, and Data Visualization in Healthcare
School of Public Health and Health Systems, University of Waterloo

Opportunity – The Ubiquitous Health Technology Lab (UbiLab, www.uwaterloo.ca/ubilab) is looking for a passionate ***Postdoctoral Fellow*** interested in complex data visualizations, user-centered design, big data, and data science. We are looking for highly motivated, self-driven, and engaged candidates with experience in user-centered design, data visualization, and full-stack software development to lead the creation of novel visualization tools for the CARE Platform (Clinical Analytics and Real-World Evidence). Real World Evidence (RWE) is data derived from numerous data sources, measuring both objective and subjective outcomes from the patients' home environment, clinical settings and workplace.

The CARE Platform has a long-term vision of realizing the value of health data by transforming clinical practice and revolutionizing research by:
- improving the speed of clinical research (observational, interventional);
- assisting with clinical decision-making via readily available datasets in a common data model that allows for research analysis;
- utilizing real-world evidence and creating a critical mass of data that clinicians can pull from to make decisions on the patient who is directly in front of them; and
- creating a transferable tool that can be used by other institutions either directly or conceptually for data discovery.

The candidate will be working with technologies such as Python, Pandas, Java, TensorFlow, Scikit-learn, Plotly, IBM Cloud, and related ecosystem stack to work on a Greenfield data and analytics platform. The successful candidate will be involved in all phases of the technology development lifecycle, from proof of concept to delivery of an end to end solution. You will be working on implementing complex data visualizations for large clinical datasets.

The successful candidate will be working closely with Roche Canada and the Techna Group at the University Health Network (UHN). At the School of Public Health and Health Systems, Faculty of Applied Health Sciences, University of Waterloo, the candidates will be working on implementing the data infrastructure and developing algorithms to interpret and visualize complex precision medicine data to support cancer research discovery.

Funding – This fellowship is supported by MITACS and Roche Canada and the selected candidate will receive CAD $45,000.00/year.

Qualifications – The ideal applicants for a Postdoctoral Fellowship at the UbiLab will have:
- a PhD degree in engineering, computer science, or related fields;
- experience with user-centered design and UX, complex data visualizations, and software development (full stack);
- strong interest in health technology and health systems; and
- working knowledge of data science, big data, solid writing abilities, and good communication skills.

Desired skills – The following skills are desired:
- HTML/CSS/JSON
- ELK Stack
- Back-End Language (C#, Node.js, Java, Python).
- Databases & Web Storage (e.g. SQL, NoSQL)
- HTTP & REST
- Web Application Architecture and Repositories (e.g. Heroku, AWS, Git)

Application process: Interested applicants should contact me at plinio.morita@uwaterloo.ca with a recent CV, a one-page research statement, and the names and contact information of three references.

Waterloo's School of Public Health and Health Systems is training a new generation of leaders, researchers, and change agents, adept at thinking and responding to the complex adaptive systems that affect health and health care. Together, we are seeking innovative solutions to some of the major health challenges of our time: chronic disease prevention and management; health and aging; health care system integration, management and informatics; food and water safety, security and governance; health inequity–including poverty and Aboriginal health issues; and health and the environment. (for more information visit https://uwaterloo.ca/public-health-and-health-systems/)

Thank you.

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