

**VACANCY-SOFTWARE ENGINEER**

Columbia Global Centers | Africa is part of Columbia University’s global network of centers, which together aim to create opportunities in research, scholarship and teaching around the world, and expand Columbia's mission as a global university. Established in Nairobi in 2011, CGC Africa links the continent to Columbia’s scientific rigor, technological innovation, and academic leadership. It provides Columbia students and academics with a base from which to conduct research in and for Africa, in disciplines including sustainable development, urban planning and climate change. The Centre also contributes to the fight against poverty under the umbrella of the Millennium Development Goals, and works closely with policy makers, governments, and regional and African institutions, providing them with objective, science-based advice. The MDG / CGC Centre operates in six countries in East and Southern Africa; Ethiopia, Kenya, Malawi, Rwanda, Tanzania and Uganda. The Center invites applications from suitably qualified candidates to fill the position of Regional M&E Specialist.

**Basic Function:**

Participate in the rapid prototyping, design, development and support of web and mobile phone based software solutions used by the Earth Institute to improve health service delivery and important social services in resource poor settings.

Development of these solutions will be done using the Python programming language and modern Web 2.0 methodologies and will incorporate basic GIS and spatial planning algorithms. The Software Engineer will develop back-end systems requiring demonstrated expertise developing in Python application frameworks like Django/Pylons as well as strong database skills. The Engineer will also assist in User Interface work requiring knowledge in JavaScript, CSS, and HTML. The Engineer is expected to have a strong background in using, administering and deploying databases that deal with large amounts of data. The incumbent will work on projects related to the delivery of health services and data collection by mobile phones and dashboards to help health managers with their development planning. These systems are to support existing projects underway across Africa.

The job carries an implementation component with the candidate expected to participate in the large scale of deployment of these systems. This includes potential field training and providing ongoing technical and end user support. The incumbent will therefore be responsible to help create training and reference materials for the systems created. The incumbent will be based in Nairobi, but will be expected to be available to provide support in the field when requested and will perform other duties as assigned.

The incumbent will be part of the Modi Resarch Group Engineering team consisting of other software/web engineers and designers, scientists and experienced development practitioners.

**Duties and Responsibilities:**

* **Back-end Web Application Development**

The incumbent is required to work in a team to develop web application back-ends using demonstrated expertise developing in Python application frameworks like Django and Pylons, and occasionally assist in front-end User Interface work requiring knowledge in JavaScript, CSS, and HTML.

* **Packaging, and Documentation for Open Source**

Code written will be open source, and barring particular circumstances, will be released with a BSD license. For projects that are thought to particularly suitable for re-use, the incumbent is expected to devote time to packaging, documentation, and community development towards creating a useful resource for the open source community.

* **Field Deployment Support and Training**

The candidate is expected to participate fully in the large scale of deployment of these systems. This includes responsibility for creating training and reference materials, and extensive field training. The incumbent will also be responsible for providing ongoing technical and end user support to teams in New York and in the field.

**Minimum Qualifications**

* Bachelor’s degree required, preferably in computer science.
* Minimum of 3 years related experience in research or industry required.
* Experience in building modern web software systems in Python is essential.
* Proven attention to detail and the ability to prioritize and manage multiple projects while functioning on a team simultaneously is a must.
* Excellent oral and written communication skills are essential.
* Must be able to work in a team and be willing to learn new technologies quickly.
* Excellent training skills required.
* Basic GIS experience including experience-making web based geospatial tools highly desirable.
* Experience with Django, Pylons, Ruby on Rails, Javascript. HTML5, CSS3 and OpenLayers highly preferred along with strong Linux and database administration skills.

**To apply**

Columbia Global Centers Africa is an equal opportunity employer. Applications for this position should be sent to **recruitment@cgcafrica.org** not later than **31 January 2014**. The CV should include contacts of three referees. Only shortlisted candidates will be contacted.

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