

MIT Job Description

Job Title: Web Developer, Climate/X CoLab	Position Title: Sponsored Research – Technical Staff
	% Effort or Wkly Hrs: 100%
Department: SLOAN	
Date: 08/11/2015	

Position Overview

The MIT's Center for Collective Intelligence (CCI) <http://cci.mit.edu> seeks to understand how crowds and experts can be combined to address large complex problems. CCI has already developed the Climate CoLab (see <http://climatecolab.org>), a project in which a rapidly growing community of more than 35,000 members, working with world-renowned experts, uses an online forum to develop and evaluate proposals about what to do about climate change. Another project, which is in the early stages, will apply crowdsourcing to gain insights into the future of work.

CCI envisions that the underlying software engine that drives both of the projects described above can serve as a general-purpose online platform for solving complex social problems (we sometimes refer to this vision as X CoLab, where X can be any large problem). We are currently exploring collaboration with several other organizations to apply the software in this way. We seek a Web Developer to contribute to maintaining and extending this tool.

Principal Duties and Responsibilities

Most of the role (80%) will involve web development (including coding, drafting mockups and ensuring the daily operation of the platform). The remaining time (20%) includes communicating with fellow team members, users, volunteers and other stakeholders.

Development tasks can include:

- Creating and maintaining controllers and models in Spring MVC and Icefaces
- Creating and maintaining views using HTML 5, Javascript (jQuery) and CSS
- Extending and maintaining modeling environments (built using JNI to communicate with Vensim, an industry standard modeling tool)
- Creating mockups and wireframes of ideas using a tool of choice
- Writing Unit Test and Integration tests for the existing platform (JUnit)
- Manual Testing of the website
- Maintaining the MySQL database in terms of configuration
- Scaling the current system, which is located on a single server, to run on many servers
- Technical support for key stakeholders as well as users of the platform
- Other duties as needed or required

Platform specifications:

Main Repository: GitHub (<https://github.com/CCI-MIT/XCoLab>)

Modeling Code: GitHub (<https://github.com/CCI-MIT/ROMA>)

Languages: Java, MySQL, HTML, CSS and JavaScript

Frameworks: JSF (IceFaces) and Spring MVC within Liferay (a Java Portlet Container). JNI

The above are supported by a MySQL database and Apache Lucene.

Work Environment

CCI's CoLab effort is a rapidly growing and innovative project, with a strong research and social mission, staffed by a passionate, high performing team. Our approach to development is to stay very close to users: develop quickly (using the 80-20 rule), release quickly, learn from people's reactions, adapt, and repeat. As a result, the team is frequently introducing, testing and improving ideas and is highly collaborative.

Qualifications & Skills

Requirements:

- Undergraduate degree in Computer Science or equivalent, Master's degree a plus
- 3 years minimum software engineering experience in a practical work environment
- Demonstrated experience working on a platform that closely engages with its many users

- Experienced at maintaining a unix production environment in terms of code and systems (Unix, Tomcat, MySQL..)
- Very Strong in HTML, CSS, JAVA, SQL and JavaScript
- Able to excel in a dynamic, fast-paced work environment that requires both independent problem-solving and highly collaborative work

Strongly preferred:

- Experience with Spring MVC, Java Server Faces (Icefaces) and the Java Portlet Environment (Liferay)
- Full stack web developer strongly preferred.

Appointment Details

- Position is based in Cambridge, MA and hours can be flexible
- This is a one year appointment with possibility of extension

To Apply

Please send a CV and a 1 page cover letter to richill@mit.edu with Climate CoLab/X CoLab Web Developer in the subject line.