



Principal Accountabilities [GZ1] [GZ2] [GZ3]	% of Time in this activity	Essential Function (E) *	
<p>1. <b>Curriculum Development:</b>  <i>Curriculum compiling, organizing, and updating:</i> Many NetLogo-based curricula have been developed over the years as parts of research projects but they have not been polished and made widely available. The curricula include units on chemistry (chemical reactions, ideal gas laws), biology (evolution, ecosystems), physics (electrical current, gravitation), earth science (greenhouse effect), and social science (wealth inequality), all of which are based around NetLogo models of the relevant phenomena. One aspect of this position will be compiling, organizing and enhancing these curricula to make them widely available. This will include reformatting old curricula to be shareable on google docs and other websites, updating out of date figures, editing the content, and organizing them on web-pages to be easily viewable and searchable.</p> <p>Curriculum creation and expansion: After existing curricula have been made available, we will want to identify the most fruitful directions for further curricular development across various disciplines and then create these curricula, likely in collaboration with other researchers or groups.</p>	40%		
<p>2. <b>Teacher Education</b>  <i>Developing teacher education programs:</i> Making NetLogo curricula available is only useful if students and teachers get to use them. A major part of this role will be developing innovative and scalable teacher education workshops to help teachers learn how to effectively bring computational modeling into their classrooms using NetLogo. The workshops will include (1) using existing NetLogo models in the classroom to engage students in inquiry-based learning and (2) learning the basics of how NetLogo models work to then modify/customize them. The goal of the workshops is to help teachers get comfortable using NetLogo and then to give them the resources and opportunities to continue learning and improving their usage of NetLogo over time.</p> <p><i>Running teacher education programs:</i> you will also be responsible for helping to run teacher education workshops together with other staff. This will likely be primarily online to have greater reach. The cycle of developing and running teacher workshops will be used to improve them over time.</p>	40%		
<p>3. <b>School and Teacher Outreach</b>  The third main aspect of this role will be doing outreach to schools to recruit teachers to our teacher education programs. This includes cultivating relationships with schools and teachers and presenting at conferences.</p>	10%		

<b>4. Other duties as assigned</b>	10%	
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THE QUALIFICATIONS LISTED BELOW MUST SUPPORT THE ESSENTIAL FUNCTIONS AND SERVE AS THE PRIMARY CRITERIA FOR SELECTING CANDIDATES.

**Minimum Qualifications:** (Education, experience, and any other certifications or clearances)

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| <ol style="list-style-type: none"> <li>1. Successful completion of a full 4-year course of study in an accredited college or university leading to a bachelor's or higher degree in a relevant field (natural science, social science, education, learning sciences, etc.) OR appropriate combination of education and experience.</li> <li>2. Experience with designing educational materials and/or experiences</li> </ol> |
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**Minimum Competencies:** (Skills, knowledge, and abilities.)

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| <ol style="list-style-type: none"> <li>1. Passion for science and interest in how computational tools can transform scientific practice and education</li> <li>2. Science content knowledge and excitement to learn more</li> <li>3. Excitement to learn agent-based modeling using NetLogo</li> <li>4. Passion for learning and education</li> <li>5. Strong written and verbal communication skills</li> <li>6. Ability to work both independently and collaboratively</li> </ol> |
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**Preferred Qualifications:** (Education and experience)

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| <ol style="list-style-type: none"> <li>1. Advanced degree (masters or PhD) in relevant field (natural science, social science, education, learning sciences, etc.)</li> <li>2. Significant experience teaching science, social studies, or math</li> <li>3. Significant experience developing instructional experience</li> <li>4. Experience with designing educational technology or web-based learning tools. The ideal would be experience creating computational models for science education, but any experience designing educational technology is helpful.</li> <li>5. Experience running educational workshops</li> <li>6. Experience with K-12 school outreach or teacher recruitment</li> </ol> |
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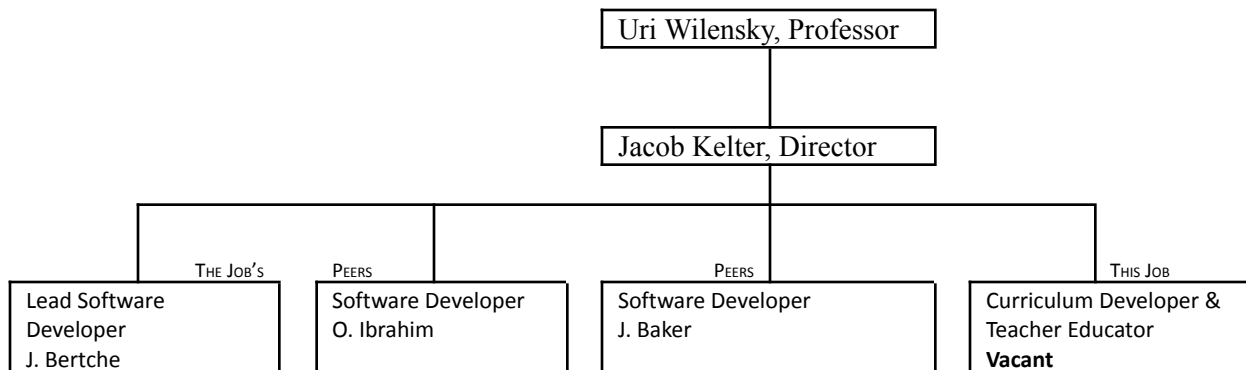
**Preferred Competencies:** (Skills, knowledge, and abilities)

1. Experience with computational thinking, computer science education, or simulation/modeling in educational contexts
2. Knowledge of NetLogo or other agent-based modeling tools
3. Familiarity with NGSS or other standards frameworks

**Working Conditions:**

ARE THERE PARTICULAR WORKING CONDITIONS ASSOCIATED WITH THE POSITION THAT SHOULD BE NOTED (I.E., WORKING ENVIRONMENT, HOURS OF WORK, WORKSPACE, ETC.)? YES NO IF YES, PLEASE EXPLAIN:

**Organization.** IF THERE IS ALREADY AN ORGANIZATION CHART THAT INCLUDES THIS JOB, ATTACH IT TO THIS DOCUMENT. OTHERWISE, COMPLETE THE CHART BELOW BY ENTERING THE JOB TITLE OF EACH JOB AND THE NAME OF THE INCUMBENT IN THAT JOB.



**Northwestern University Job Opening Data for New Positions**

Complete the following section if the position description is for a position that is to be posted. Human Resources will create the position number and position description in HRIS and contact the data coordinator when the job opening can be created in eRecruit.

<b>Location Code:</b>	<b>Exempt</b>	<b>x</b>
<b>Check Address Code:</b>	<b>Nonexempt</b>	
<b>Position End Date:</b> (if applicable)	<b>Percent Full Time:</b>	<b>100</b>
	<b>Hrs Per Week:</b>	<b>37.5</b>

<b>Approved Funding Source:</b>						<b>Funding Stop Date</b>			
						(if applicable):			
Fund (3)	Dept (7)	Project (8)	Activity (2)	Account (5)	Percentage s				
					100				

<b>eRecruit Roles:</b>	
Data Coordinator	
Hiring Manager	
Authorizer	
Recruiter	
Resume Receiver	Denise Mytko, Susan Corwith

<b>If less than a 12 month position:</b>	
9 months	
10 months	
11 months	

Does this position require driving a vehicle on University business as a job duty?	Yes	<b>N o</b>
Does this position require driving a vehicle in excess of 26,000 pounds gross vehicle weight or carrying 15 or more passengers?	Yes	<b>N o</b>
Does this position have access to social security numbers or credit information of students, parents, donors, faculty or staff, or other sources of payment to the University?	Yes	<b>N o</b>
Does this position have access to over \$5000 in cash or merchandise or procurement card purchase authority, access to student residences, to controlled substances, or to minor children?	Yes	<b>N o</b>
Does this position require access to Northwestern Memorial Hospital?	Yes	<b>N o</b>