Project: **Engaging Libraries in Culturally Responsive STEM Programming**

*Patricia Garcia*

This project is a partnership with **Ypsilanti District Library, Imperial County Free Library, and Tempe Public Library** to develop and implement a **culturally responsive model** for teaching **computational thinking** in libraries. The project is guided by three overarching goals: 1) to ensure that librarians possess the expertise needed to serve as computer science educators who can effectively deliver a culturally responsive computational thinking program; 2) to evaluate the feasibility of the program for scalability and sustainability; and 3) to improve **cognitive outcomes** (computational thinking skills) and **non-cognitive** outcomes (self efficacy and persistence) among participants, which are teenage girls from under-resourced school districts.

**Student Role:**
The student will participate in the following:

- assist in data collection and analysis, including collecting observational and interview data
- support public libraries in implementing computational thinking programming
- assist in curriculum and activity development
- attend weekly interdisciplinary (education and information studies) research meetings
- conduct literature reviews related to the use of culturally responsive pedagogy in computer science education contexts
- practice professional skills such as collaboration, project management, and presentational speaking
- contribute to the authoring of research outcomes via presentations and/or peer-reviewed articles

**Mentorship Plan:**
The student will meet with the mentor bi-weekly during individual meetings. The individual meetings will focus on developing personalized goals for academic, professional, and personal growth. These goals will include identifying research interests, outlining specific skills and/or knowledge they hope to gain through the experience, and determining strategies for reaching their goals. In addition to individual meetings, the student will participate in weekly team meetings where they will be exposed to an interdisciplinary and collaborative culture of research. The research team is composed of doctoral and master’s students from the University of Michigan School of Information and School of Education. During the weekly meetings, students will participate in discussions of relevant literature, brainstorming sessions on avenues for scholarly publications, and discussions on how to properly manage and protect confidential research data.