

Explorations: ReUPS, Experiential Learning in Emerging STEM Technologies| AWARD 2347251

Community Partners: Karen Society of Buffalo (KSB), Buffalo Public School District

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[Project website link](#)

Project Description

- **Connecting underprivileged high school talents with the opportunities**
- **Developing future STEM leaders** from untapped human resources & communities
- **Experiential learning** with cutting-edge research in diverse emerging STEM technologies

Key Achievements

- **Driving inclusive STEM engagement to empower underserved communities.**
- **Designing experiential curricula that build a future-ready talent pool.**
- **Patching the "leaky pipeline"** through a sustainable, end-to-end talent model.
- **Proven Scalability** for Year-Long Program that provides a national blueprint

Learnings:

- Mentorship Requires **Cultural Competency**, Not Just Expertise
- Access is **Not the Same** as Support
- Curricula Must Be **Problem-First**, Not "Theory-First"
- Sustainability Requires **Employer Buy-In**

Audience & Settings

Audience: Rising Highschoolers in Western New York Region

Discipline type: Emerging Technology in AI, Cybersecurity, IoT, Drone& Robotics

Learning environment:

The ReUPS program is a successful, intensive 6-week summer initiative at the University at Buffalo designed to cultivate future STEM leaders from underrepresented communities in the Buffalo/WNY region

Key Achievements:



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ReUPS: Overview of the Six-week Program

