Exploring the intersection of education and technology

CatapultED –
Bridging Tech Talent
Gaps

Mehdi Mekni, PhD

Tagliatela College of Engineering

University of New Haven





Empowering learners with innovative tech-driven educational opportunities for success



# The Challenge of Education Reform

## Bridging the gap between traditional learning and technology

The disconnect between outdated textbooks and rapid technological advancements creates a significant challenge for educators. Students are left unprepared for the evolving job market, as they lack exposure to essential tech skills

65% of tech employers report skills gaps in new hires (NSF, 2024), while underrepresented students face barriers accessing career-ready training.

## Key Stakeholders





### Learners

**Learners** bring unique perspectives and **innovative solutions** to the educational landscape.



## **Employers**

Leading companies like Unity and CAE-CO are eager to **collaborate** with educational institutions to fill skill gaps.



### Academia

Universities like UNH play a crucial role in fostering **connections** between industry demands and student education.



## **Emerging Technologies**

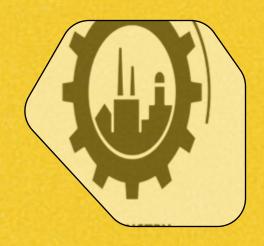
Utilizing Cybersecurity, Gaming, Mixed Reality, creates engaging learning experiences, enhancing accessibility and relevance in education.



### Stackable Micro-Credentials

These micro-credentials allow students to develop **specific skills** in emerging technologies, fostering their readiness for careers in rapidly evolving fields.

Cybersecurity jobs will grow 35% by 2030 (BLS), yet only 24% of programs align with industry certifications.



### **Industry-Recognized Certifications**

Achieving industry-recognized certifications ensures students gain **valuable credentials** that enhance their employability and provide a competitive edge in the job market (Amazon, Google, IBM, Microsoft, RedHat, Unity).



## Bridging Skills and Opportunity

Unlike traditional degree pathways, **CatapultED** offers modular, employer-validated credentials—similar to IBM's SkillsBuild—but tailored for interdisciplinary tech fields.



### **Collaborative Learning**

A collaborative learning environment encourages students to engage, network, and **share ideas**, paving the way for innovative solutions to modern industry challenges.

## **Environmental Analysis**



## Resources and Needs





Building relationships with innovative organizations is crucial for program success.



### **Funding**

Securing adequate financial resources will drive our **technology initiatives forward**.



### **Policy Support**

Advocating for supportive policies will enhance our **educational transformation efforts**.

## Project Roadmap and Milestones

Credential Launch

First cohort of students certified successfully

Students attain essential skills through diverse pathways.



**Community Engagement** 

**Building partnerships with local organizations and industries** 

Collaborative efforts increase awareness and support for initiatives.

Program Expansion

Expanding offerings to include more technologies

New pathways are developed to meet evolving industry needs.

**Continuous Improvement** 

Regularly evaluating and updating curriculum and resources

Ensuring the program remains relevant and impactful for students.



Strategic initiatives with Saudi Arabia to launch CatapultED with new cybersecurity & gaming focused micro-credential programs in A.Y. 2025 / 2026



## Thank You

Get in touch for more information about our initiatives and partnerships.

Mehdi Mekni, PhD

Tagliatela College of Engineering
University of New Haven

mmekni@NewHaven.edu

