MSTAT

## Tailoring first responder training with AI and human-centered computing

Optimized learning path and curriculum

Charles River Analytics is developing a mobile-friendly, personalized training program for first responders to practice and refine medical and trauma treatment skills on virtual patients.

MSTAT intelligently adapts to a specific trainee's learning curve, providing an optimized learning path and curriculum.
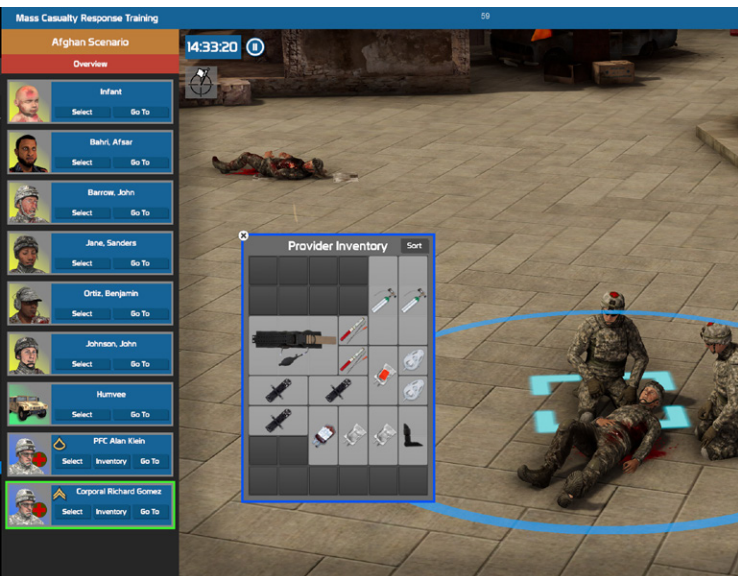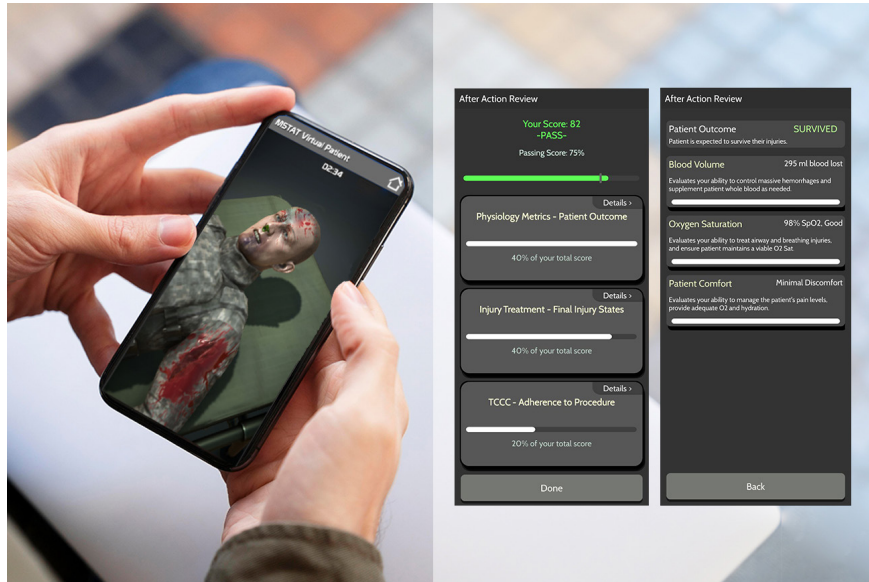
Meeting training challenges for first responders

A virtual environment can provide necessary hands-on training without exposing trainees to harsh surroundings or the use of expensive equipment. With MSTAT's virtual technology and naturalistic user interfaces, trainees can safely visit—and revisit—challenging environments, better preparing them for real-world scenarios.

Trainees can have a wide range of abilities and knowledge; MSTAT's individualized training accommodates these differences, tracking individual progress and providing interactive virtual patients with varying levels of injury. MSTAT can deliver a series of existing scenarios or automatically generate novel scenarios tailored to specific learning needs.

charles river analytics
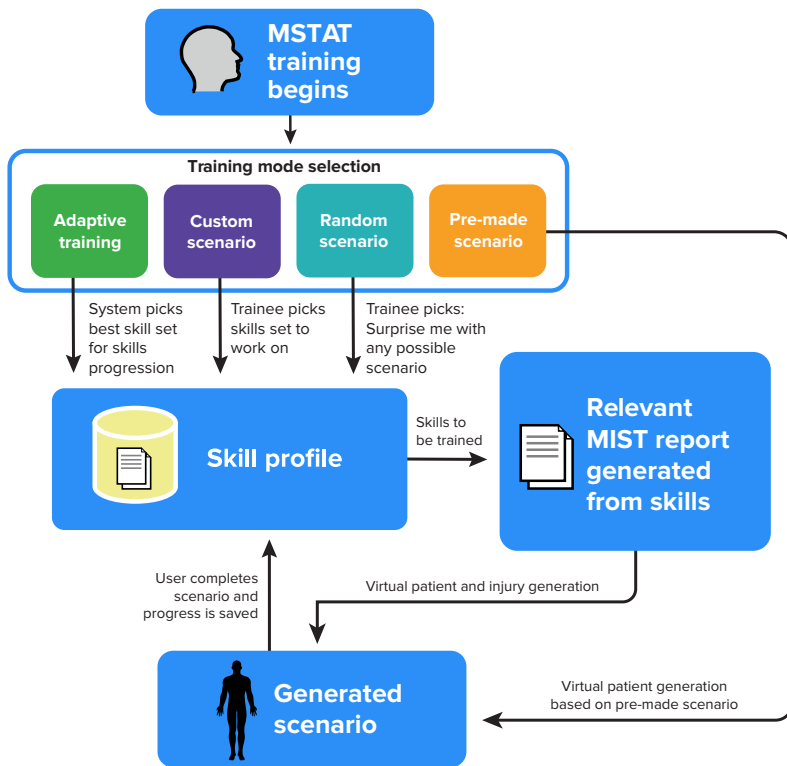
AI tailors scenarios to the trainee's learning curve in real time

MSTAT's adaptive intelligent training technology combines Charles River's advanced decision-making framework with knowledge from experienced military medical personnel. This framework models skills, captures important and generalizable decision-making themes, then assesses trainee proficiency against objective performance metrics linked to skills.

Annotated skill trees break down tasks into their component parts, including non-standard steps, repair steps, and technique variations.

Key Advantages

Virtual training helps trainees master the rapid, critical decision-making needed to save lives, giving them the confidence to perform quickly when faced with real-life emergencies.

Training tailored to an individual's current abilities and knowledge increases efficiency and reduces training time and cost.

Charles River Analytics' training technology can easily be scaled and applied to other medical training curriculums.

charles river analytics

Charles River Analytics uniquely combines agile innovation and leading-edge research with a decades-long track record of hardened engineering in austere environments to create best-in-class solutions to diverse, challenging problems.

For more information, contact

Benjamin Bauchwitz
Scientist
bbauchwitz@cra.com
617.491.3474 x720