CHALLENGE #17
UI-MRA-03

A Mixed Reality Application for Disaster Response, Recovery, and Communication

Meet the expectations of this US Node through the technology challenge described below

APPLY NOW

GOALS

A critical strategy to preparing for and responding to natural disasters (e.g. flood) is the effective and intuitive presentation of massive interconnected environmental data. Virtual and augmented reality applications provide a unique opportunity to allow decision-makers, scientists, and the public to examine and assess current or future disasters and their effects on communities with context-aware data visualization and implementing event dynamics. In this challenge, we aim to create a generalized and immersive disaster response application that will generate the 3D model (e.g. terrain, infrastructures) of a community on the fly along with in-situ information visualizations (e.g. damage estimations) and dynamic simulations (e.g. water flow).

DETAILS

Dynamically generating 3D city models using elevation model, textures, infrastructure, roads for a given location. - Developing an immersive application that can be ported into augmented and virtual reality headsets. - Integrating external environmental and hydrological data via APIs for effective visualizations and edge computations.

SKILLS REQUIRED

Experience with game engines and/or 3D design (e.g. Unity) - AR/VR Understanding and Development - Experience on web services and APIs - Any experience in visualization and graphic design is a plus.

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