Visualizing Time Projection Chamber Data for Education and Outreach[1] JACOB CROSBY, Michigan State Univ — The widespread availability of portable computers in the form of smartphones provides a unique opportunity to introduce scientific concepts to a broad audience, for the purpose of education, or for the purpose of sharing exciting developments and research. Unity [1], a free game development platform, has been used to develop a program to visualize 3-D events from a Time Projection Chamber (TPC). The program can be presented as a Virtual Reality (VR) application on a smartphone, which can serve as a standalone demonstration for interested individuals, or as a resource for educators. An interactive experience to watch nuclear events unfold demonstrates the principles of particle detection with a TPC, as well as providing information about the particles present. Different kinds of reactions can be showcased. The current state of tools within this program for outreach and educational purposes will be highlighted and presented in this poster, along with key design concerns and optimizations necessary for running an interactive VR app. The events highlighted in this program are from the SπRIT TPC [2], but the program can be applied to other 3-D detectors. [1] "Unity - Game Engine": https://unity3d.com/ accessed 7/25/2017 [2] R. Shane et al.: Nucl. Instr. Meth. A 784, 513 (2015).

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