

VIRTUAL REALITY TRAINING



TEAM MEMBERS: CAMERON CHENG, FERNANDO TORRES, DENISE TABILAS, MARTIN CASTORENA, MANUEL GUILLEN, JAIDEN HOLCOMB, SENG HEI LEI, MATTHEW MENDOZA, KEVIN TRUONG, HAN CAO

FACULTY ADVISOR: DR. DAVID KRUM

SCE LIAISONS: ABDER ELANDALOUSSI

DEPARTMENT(S) OF COMPUTER SCIENCE

COLLEGE OF ENGINEERING, COMPUTER SCIENCE, AND TECHNOLOGY

CALIFORNIA STATE UNIVERSITY, LOS ANGELES



BACKGROUND

Southern California Edison (SCE) is the largest subsidiary of Edison International and the primary electricity utility for much of Southern California. With a service territory of approximately 50,000 square miles, SCE provides electricity to approximately 15 million people. Currently, SCE uses outside contractors to do work for them, but they often do not receive the same level of training that a typical SCE field worker would receive. Moreover, conducting training on installation steps, particularly for inexperienced individuals, is a challenging task that requires expertise and care.



OBJECTIVE

Our goal is to develop a virtual reality training simulation to teach independent contractors relevant installation steps as well as important safety procedures when working with and around electric poles. Through this project, we hope it will be easier for users to familiarize themselves with the relevant equipment, installation, and safety procedures.

PROCESS

1. Communicate with clients to discuss deliverables
2. Create virtual reality simulation
3. Demo the simulation to clients
4. Work with the clients to identify missing requirements
5. Divide tasks/features among team members
6. Meet weekly to discuss progress and identify any issues or areas of improvement.
7. Incorporate and or fix discussed issues/improvements in simulation program.



TOOLS & SOFTWARE



OCULUS



unity



blender



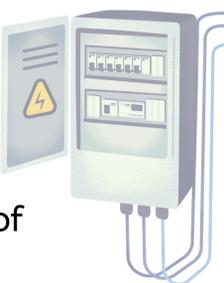
GitHub



Windows 11

FEATURES

- Custom-built 3D models of equipment used
- Step-by-step, user friendly guide to complete the training program
- Custom environment of a typical neighborhood to provide a more immersive experience
- Snap zones to ensure the proper placement of equipment



RESULTS

Our team designed and built a fully functional training program that includes the necessary steps to install smart navigators safely and adequately to work with the pole master.

