

MICHIGAN STATE

U N I V E R S I T Y

Alpha Presentation

3D Scene Reconstruction of Vehicle Accidents

The Capstone Experience
Team CSAA Insurance Innovation

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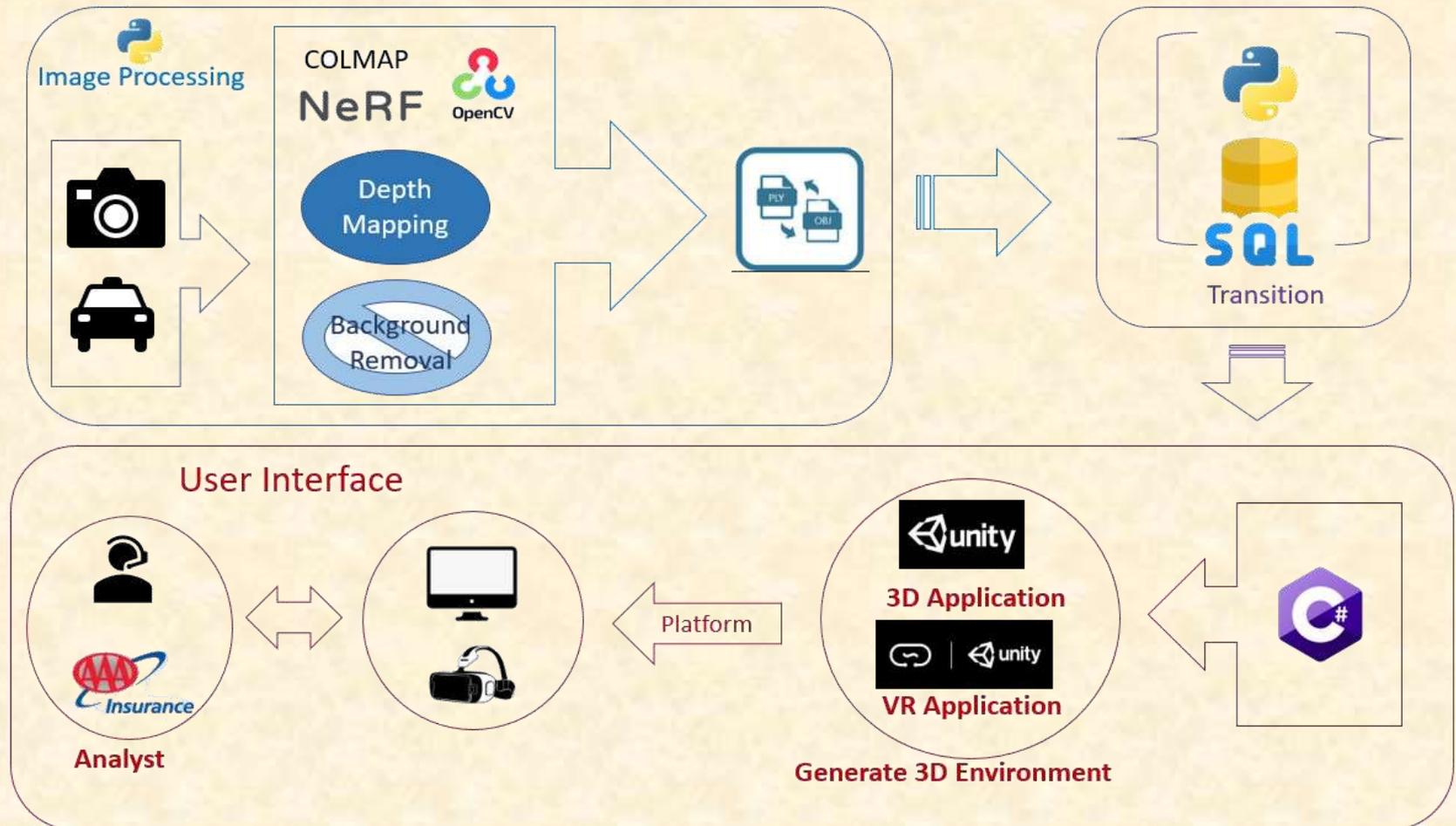
*From Students...
...to Professionals*

Project Overview

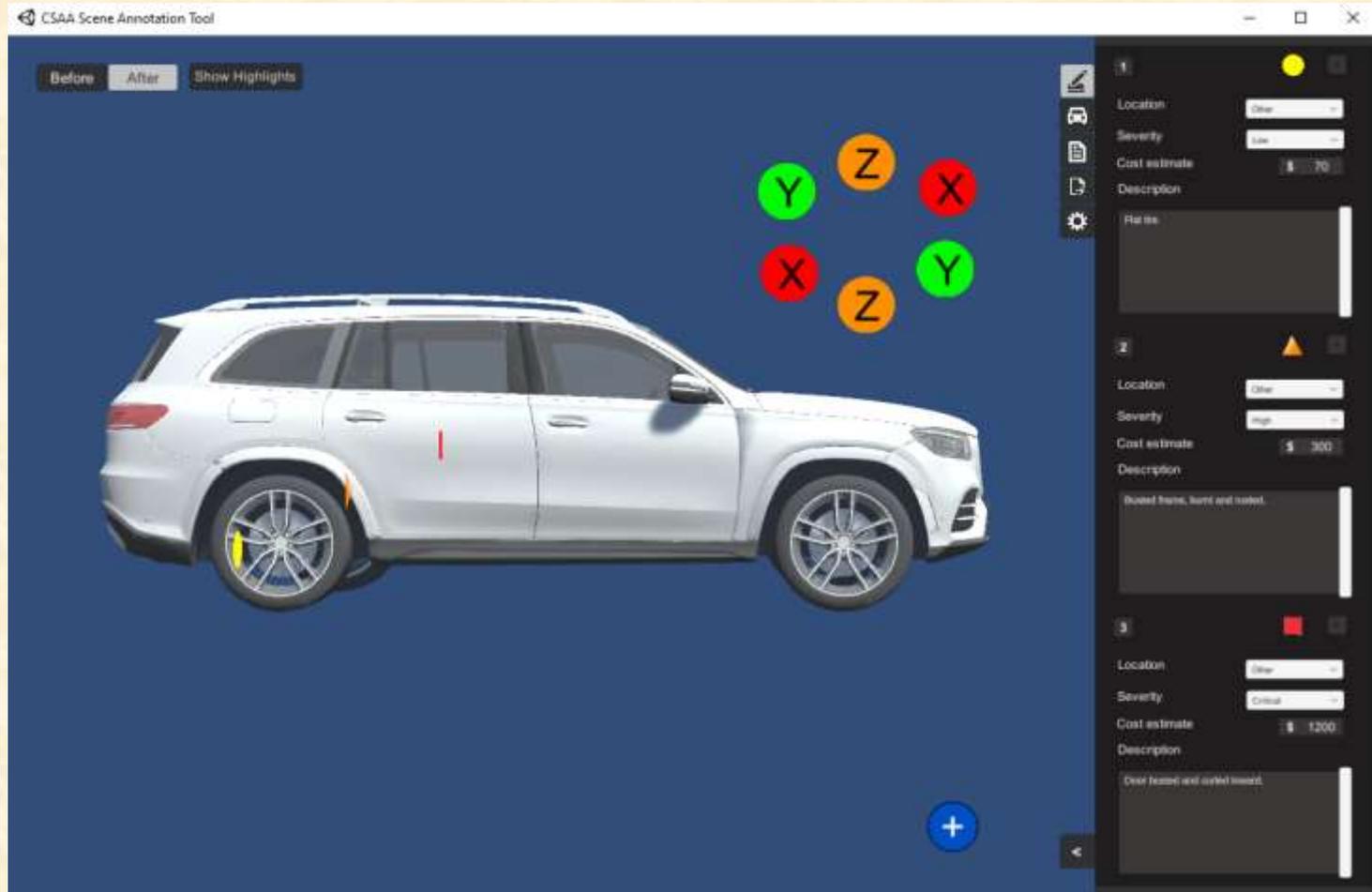
- Recreate 3D model to analyze vehicle accidents
- Annotate damages
- Compare to undamaged vehicle
- Provide comprehensive damage reports
- Aid analysts and customers in discerning next steps



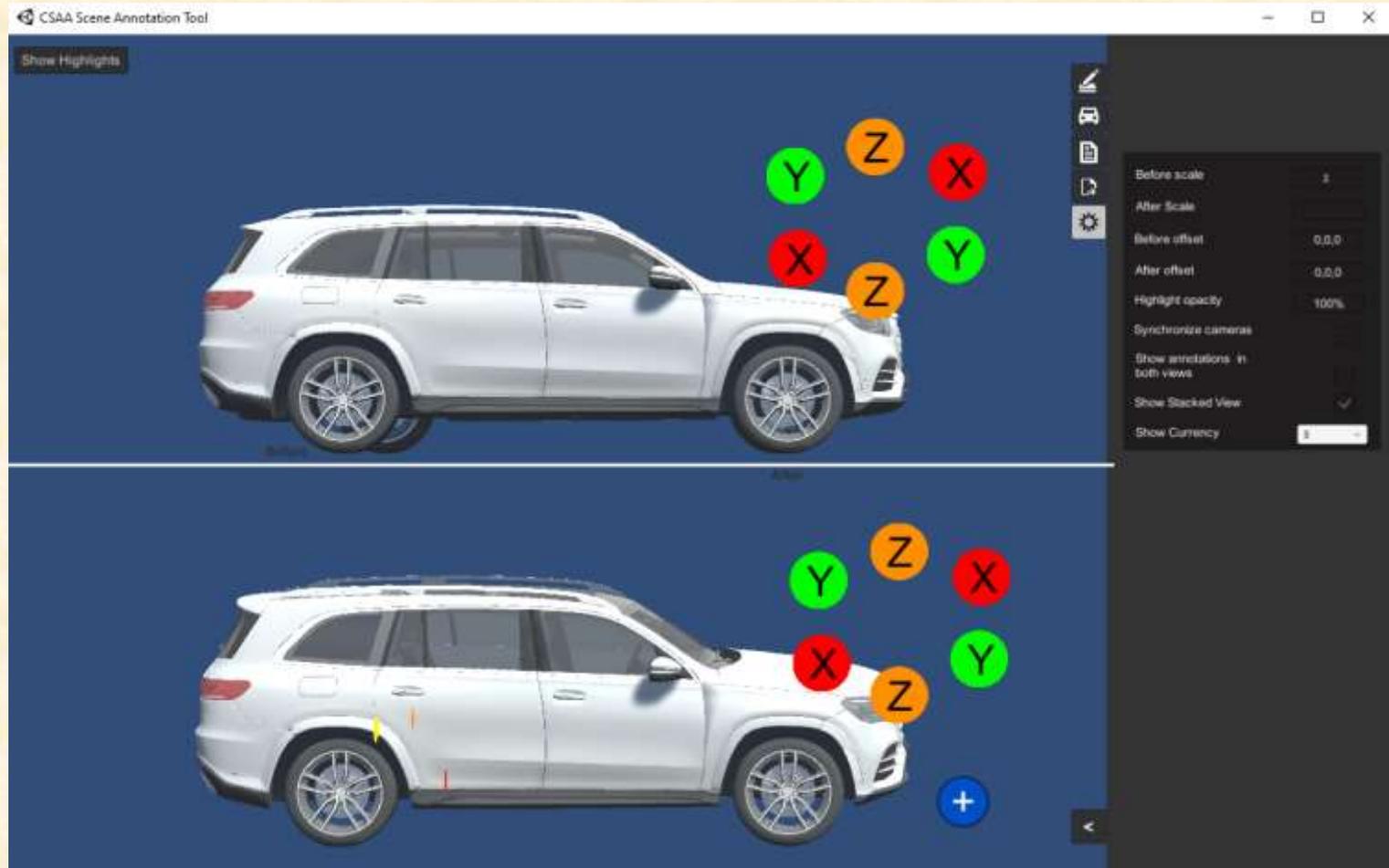
System Architecture



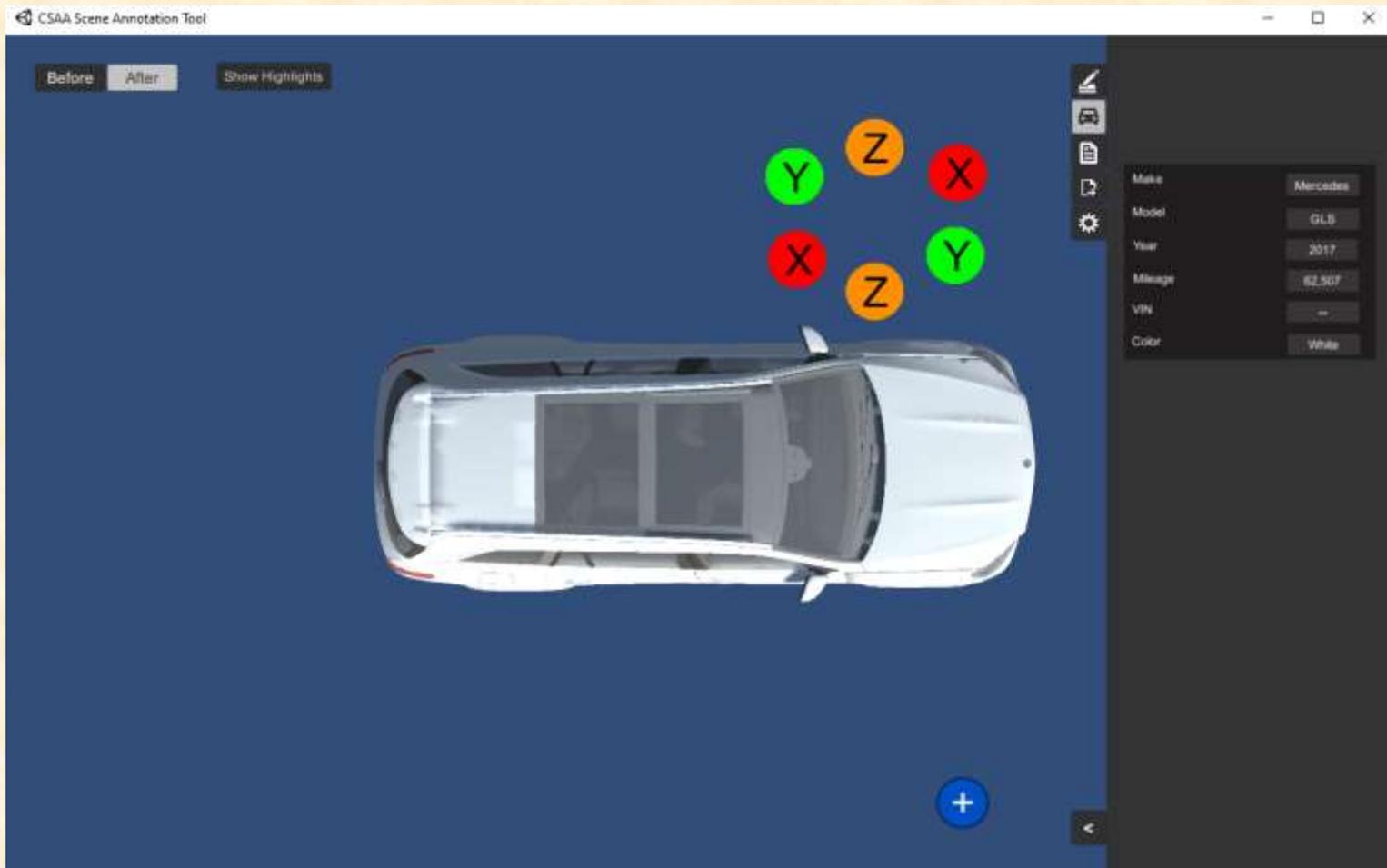
Before and After View with Annotations



Stacked View With System Preferences

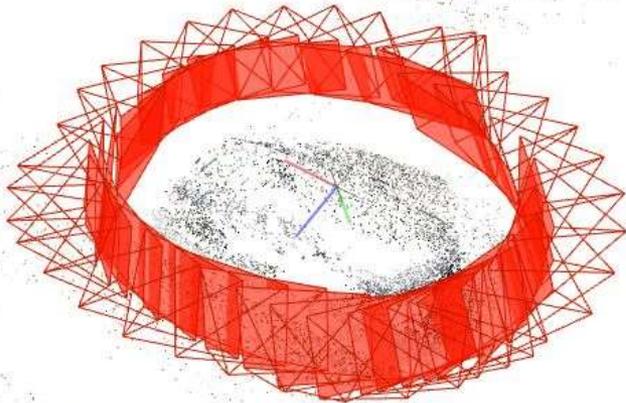


Rotated Vehicle with Vehicle Info

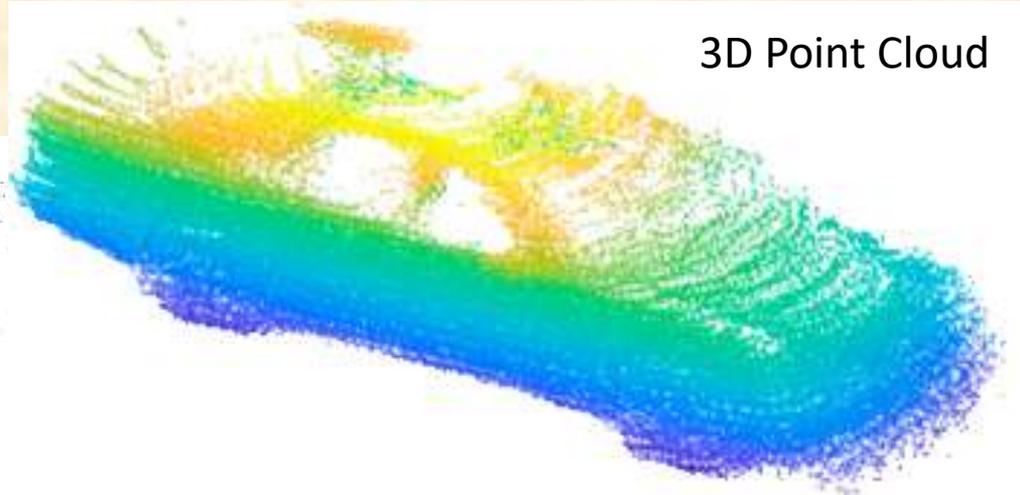


Back End Model

Pose Estimation



3D Point Cloud



What's left to do?

- UI
 - Finish scene rotation
 - VR interface
 - Back-end UI menu
- 3D Scene Reconstruction
 - Background removal
 - Improve quality
 - Increase input tolerance
 - Reduce processing time



Questions?

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