MICHIGAN STATE
UNIVERSITY

Beta Presentation
World Feature Generation for ADAS Simulation

The Capstone Experience

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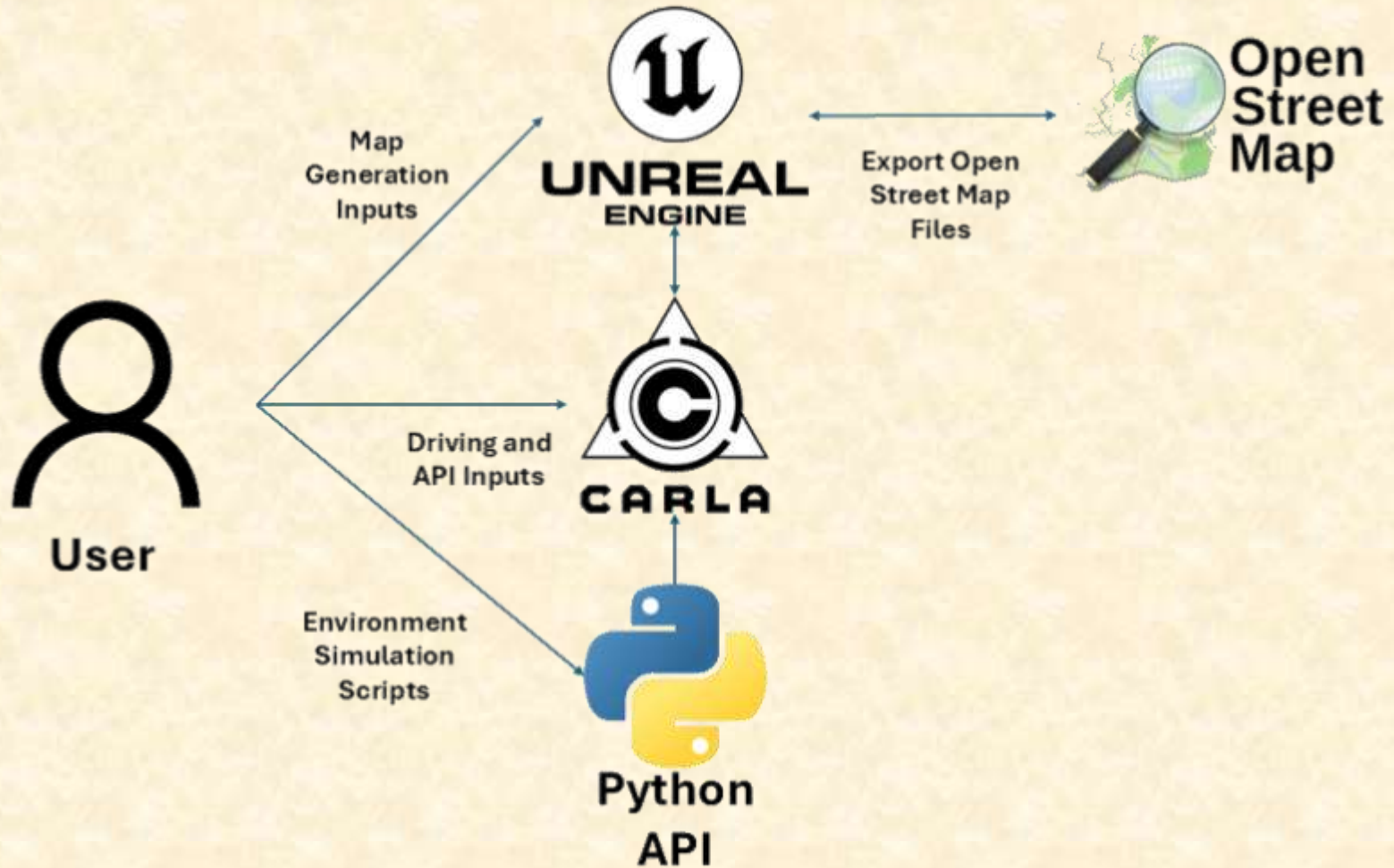
Michigan State University

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From Students…
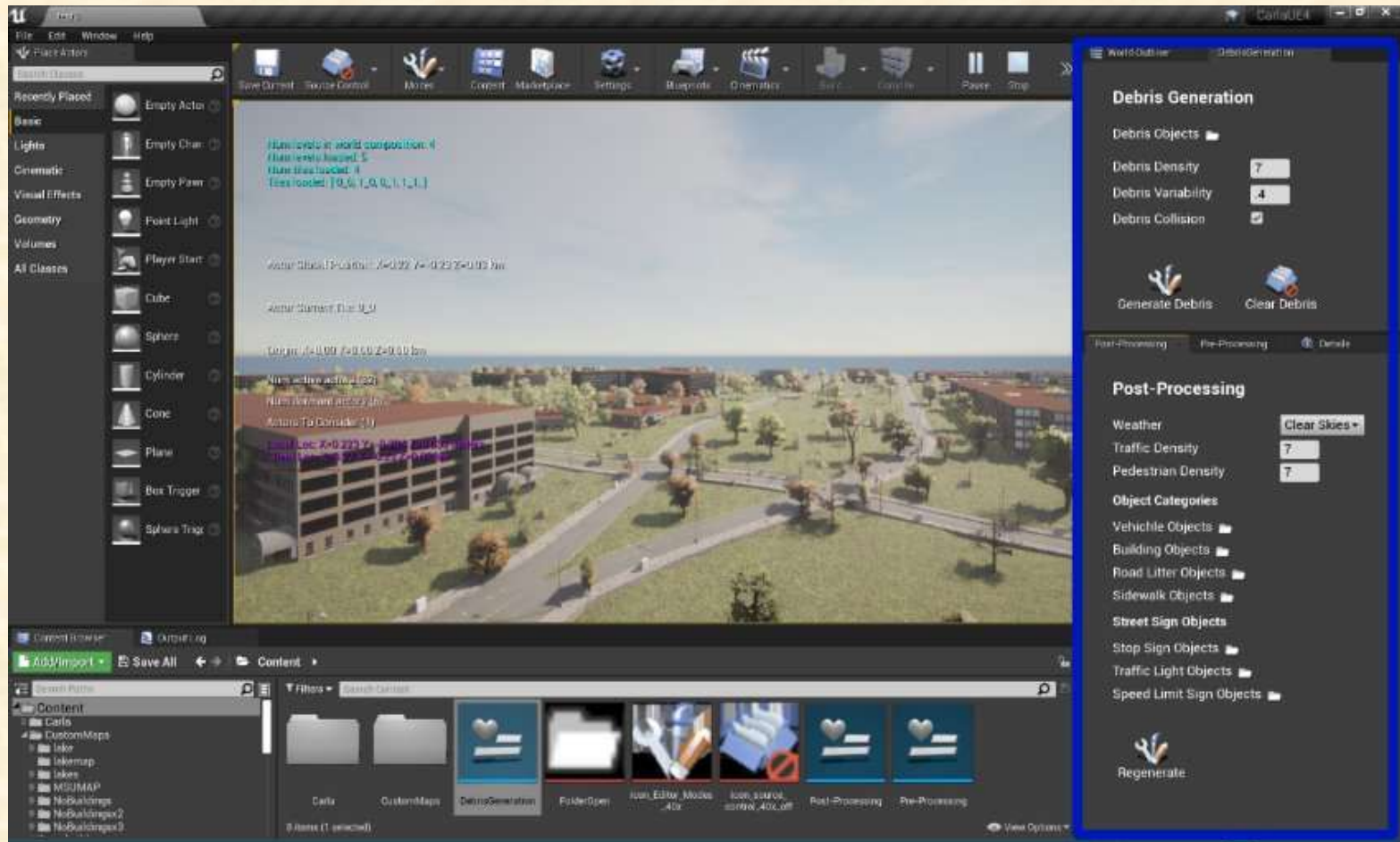*…to Professionals*

Project Overview

- Develop software to cut down on time spent creating environments for autonomous vehicle testing.

- Retrieve road data from an open-source database OpenStreetMap and convert to a traversable environment.

- Apply post processes that add specific conditions to the road and its surroundings.

System Architecture

Interactive UI

Map Acquisition

Road Network of Found Location

Road Network with Sign Locations

Environment Pre-processing

Before pre-processing

After Pre-processing for heights and levels

Road Debris

What's left to do?

- Stretch Goals
  - Create pre-made presets to demonstrate software to client
  - Add weather option for snow
  - Include physics and collision simulation for debris
- Other Tasks
  - Identify and resolve bugs
  - Create documentation explaining the use of the system for the client

Questions?