MICHIGAN STATE
UNIVERSITY

Alpha Presentation
IMAGINE: IMAGe INtake Experience

The Capstone Experience

Team Auto-Owners

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From Students…
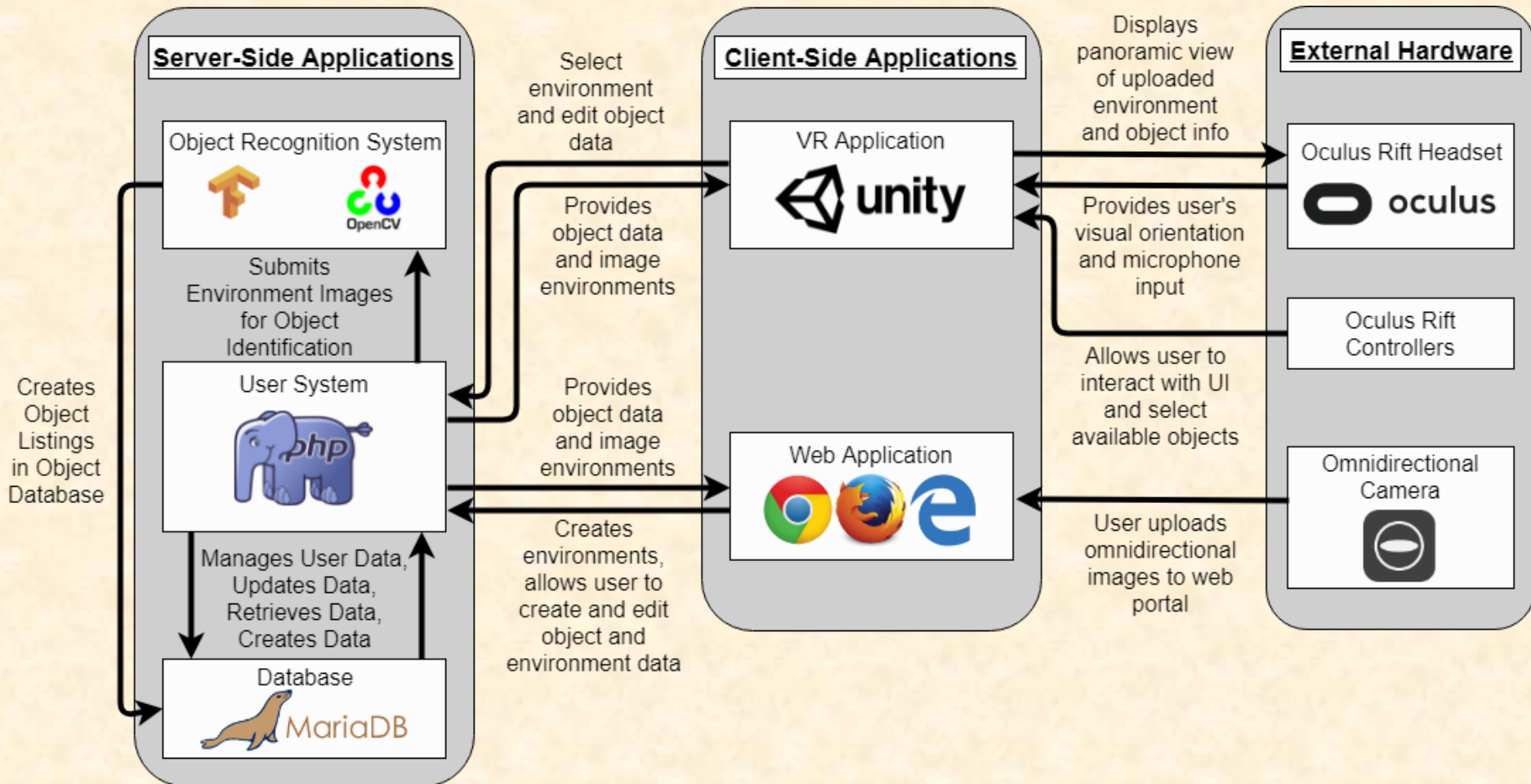*…to Professionals*

Project Overview

- Auto-Owners wants a way to easily Evaluate Physical Environments
- Virtual Reality Application
  - View 360° Images as if you are On Location using an Oculus Rift
  - View Info and Make Notes on Objects using the Oculus Controllers
- Web Application
  - Upload Images and Create Environments
  - View and Edit Environment and Image Information
  - View Inventory of Objects in an Environment
  - Add or Edit Objects and their Information
- Object Detector/Classifier
  - Identify Objects in an Image
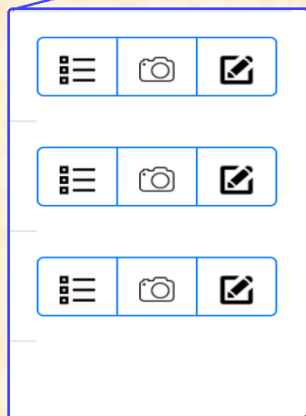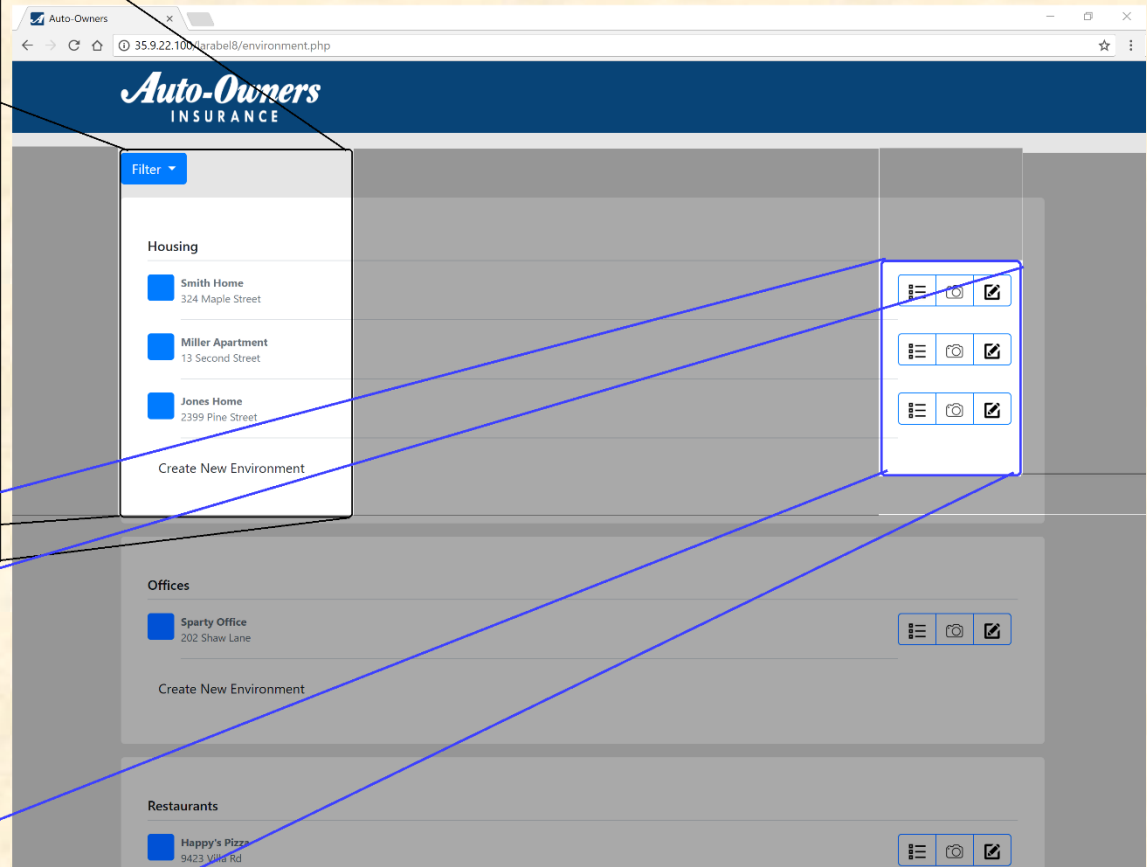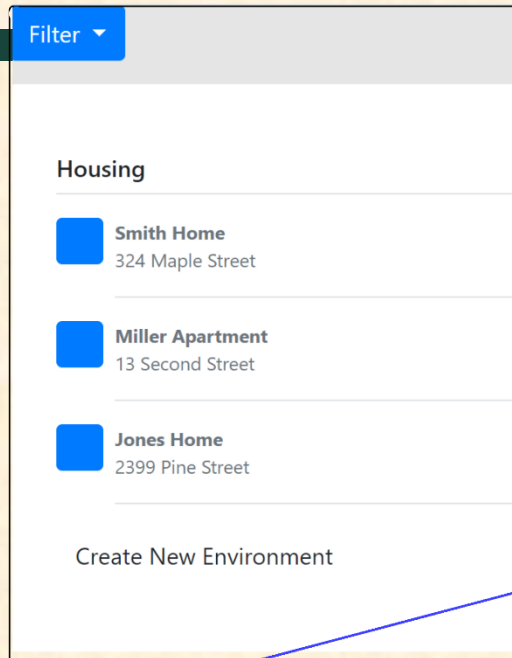 - Classify General Types of Environments

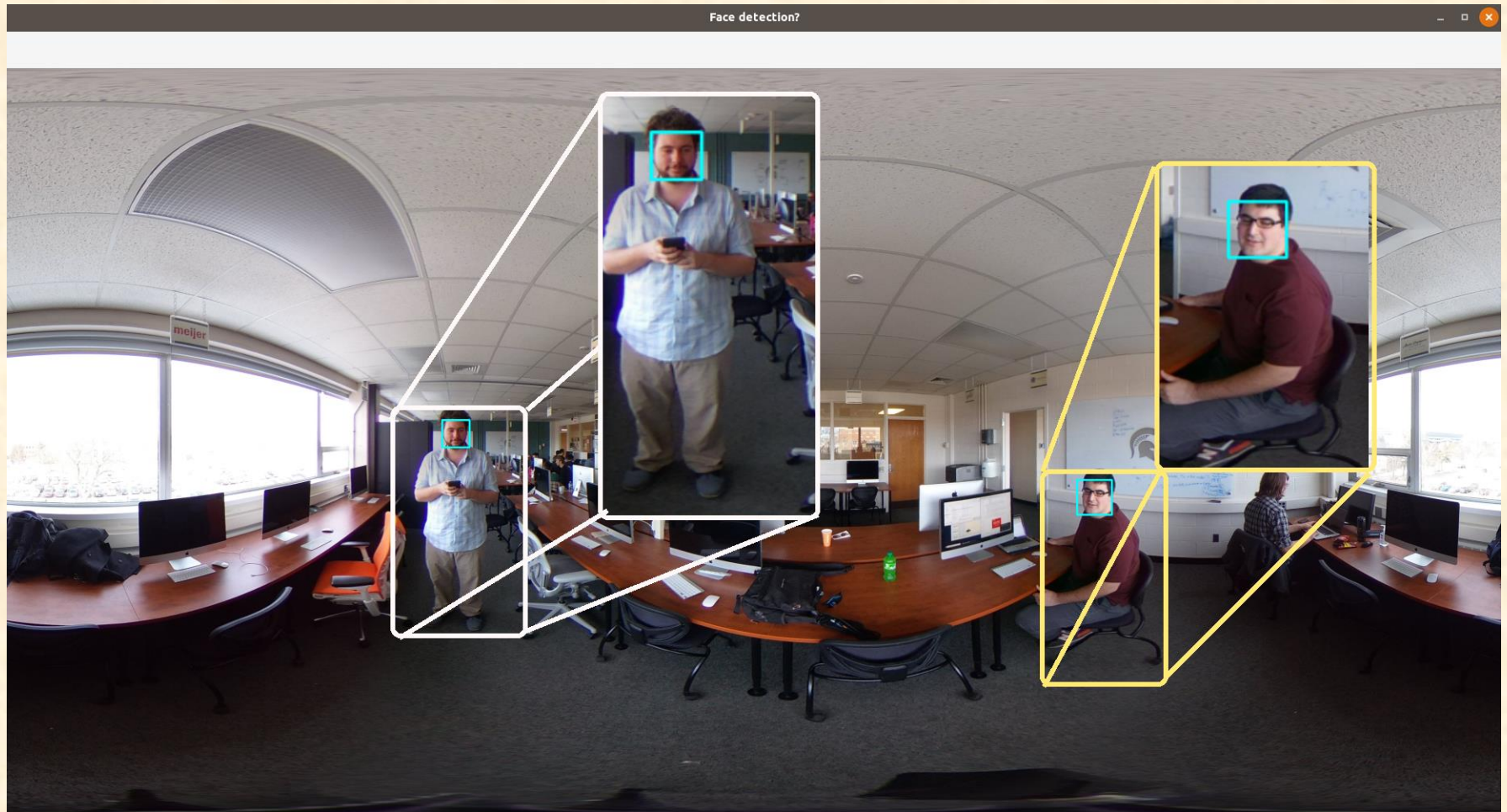# System Architecture
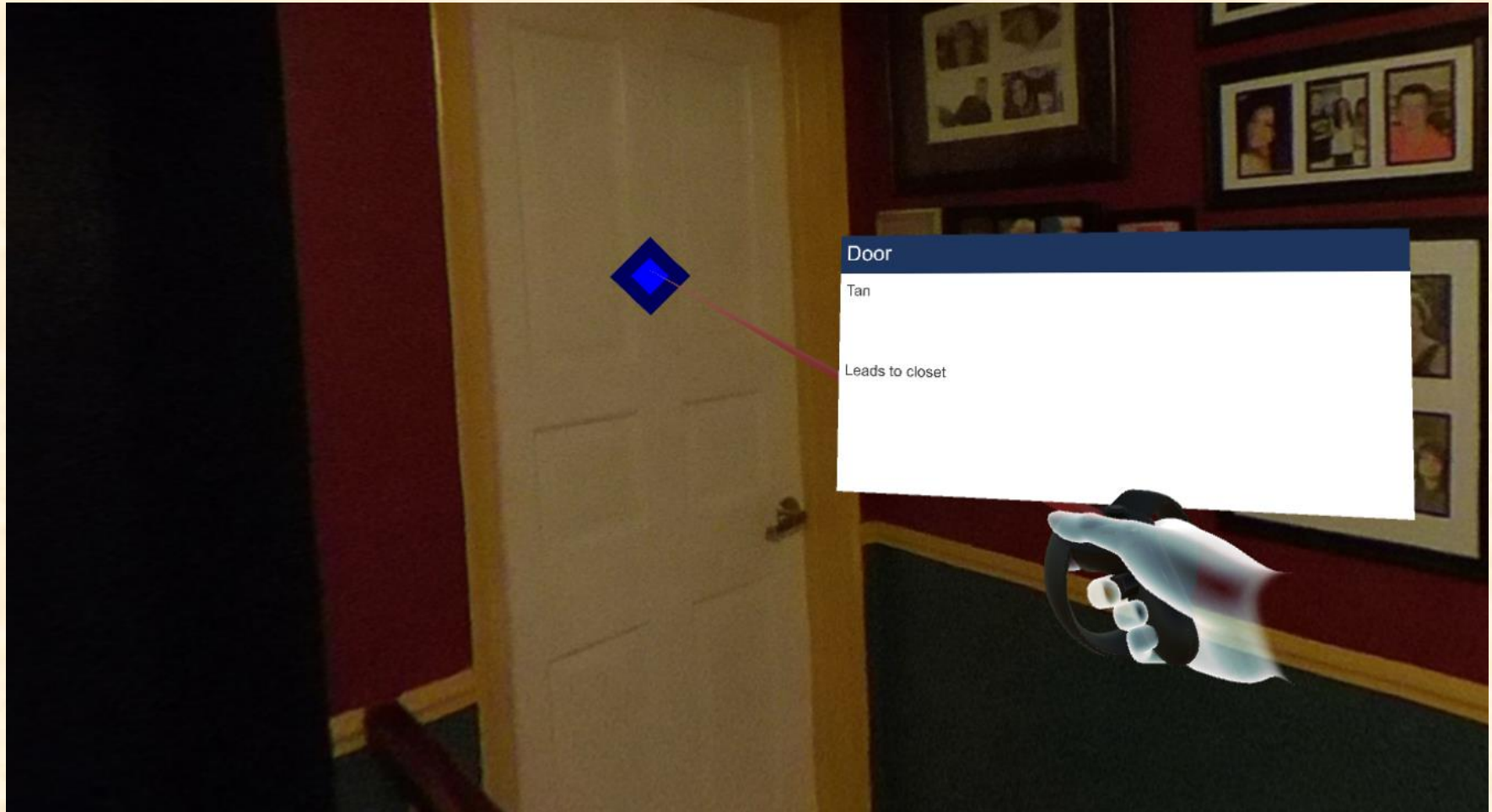
Web: Environments List

Web: Inventory List

Object Detection

VR: Selecting Object Nodes

What's Left To Do?

- Object Detection
  - Implement Classification Abilities for Additional Objects
  - Implement Environment Classification Abilities
  - Overcome Effects of Warping in 360° Images
- VR Application
  - Complete UI Elements
  - Fix Image Distortion Issues
- Web Application
  - Add Image Gallery
  - Implement Exporting of Object Inventory to Other File Formats (i.e. csv, xml, json, etc.)
- Integrate Web and VR Clients with Server Backend

Questions?