

Old-Town Osaka Viewer on Android Device
Osaka University
August 10, 2012

Sumin Wang

Progress

- Made several attempts to fix rendering of multiple textures per object, but ran into major roadblocks due to uncertainty about 3ds files and OpenGL
- Made an attempt to partition 3ds file but faced major resistance due to unwieldy nature of large 3ds files on an ordinary laptop computer

Final Results

- A location-based augmented reality application that can view a portion of the Old-Town Osaka model

Requiring Further Investigation

- How to partition large 3d models into pieces, storing the majority of data in disk space while rendering only a piece at a time
- How to decide which piece to render based on current location
- How to implement this real-time location-based retrieval and rendering
- How to get multiple textures per object to render
- When rendering a piece of the model, how to balance total number of polygons and total size of textures to utilize maximum memory allowed per application (128 MB)



Hot sake and eggplant at an izakaya



Vending machine fast food



Well portioned and just sweet enough ... I begin to suspect that Japanese culture pairs well with delicate appetites



Free matcha

Acknowledgments

- Osaka University Takemura Laboratory
- CalIt2 Immersive Visualization Laboratory
- University of California, San Diego
- Osaka University
- Pacific Rim Undergraduate Experience
- National Science Foundation, IOSE-0710726
- Dr. Kiyoshi Kiyokawa, Takemura Laboratory, Osaka University
- Dr. Jurgen Schulze, Immersive Visualization Laboratory, CalIt2, UC San Diego
- Dr. Shinji Shimojo, NICT, Osaka University
- Dr. Takefumi Hayashi, Kansai University
- Dr. Gabriele Weinhausen, PRIME Principal Investigator, UC San Diego
- Dr. Peter Arzberger, PRIME Principal Investigator, UC San Diego
- Dr. Jason Haga, PRIME cultural advisor, UC San Diego
- Teri Simas, PRIME Program Manager, UC San Diego
- James Galvin, Director of Opportunities Abroad and Faculty-Led Programs, UC San Diego