CGT 390: Computer Graphics Programming with WebGL

Instructor : Tim McGraw

Spring 2016, Department of Computer Graphics Technology

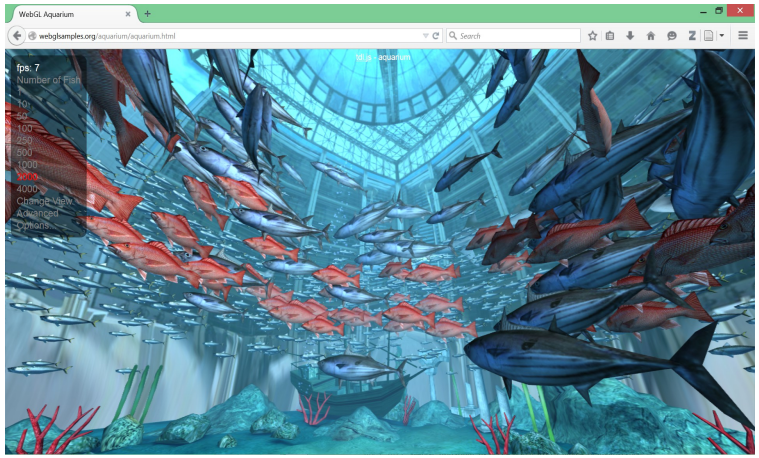
Description

3 credit hours
Time: T,Th 11:30am-1:20pm

Prerequisites : MA 16010 (Calculus), CGT 21500 or prior programming experience

Introduction to realtime 2D and 3D graphics programming using WebGL and JavaScript. Students will learn to create interactive graphics applications that run in the web browser. Topics include mesh rendering with vertex buffer objects, animation using vertex shaders, lighting models using fragment shaders, and responding to user input events. Prior programming experience is required.

High Performance Rendering in the Browser

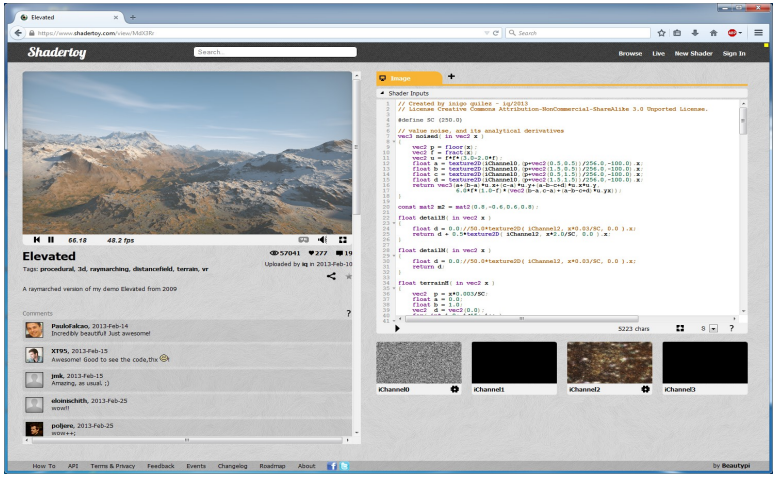


Exploit the power of the GPU. WebGL enables high performance rendering of textured meshes in the browser. No plugins required.

Check out some amazing WebGL examples

- www.shadertoy.com
- www.chromeexperiments.com/webgl
- webglsamples.org

Write Vertex Shaders and Fragment Shaders



Get low-level control over the rendering process by writing custom vertex and fragment shaders that perform animation, lighting and texturing.

Contact Info

Tim McGraw
http://web.ics.purdue.edu/~tmcgraw/
tmcgraw@purdue.edu
Knoy Hall of Technology, Room 313