

## **Multiple Graduate Student Research Positions (Funding will be for both Tuition + Stipend)**

We are currently looking for master students that will work on the design, development and data analysis of the next generation virtual reality based surgical simulation platforms involving real-time 3D graphics with OpenGL (also WebGL), 3D modeling, haptics programming, parallel processing and data analysis with machine learning.

### **Project Description:**

The person will be working in research projects funded by National Institution of Health (NIH) that aims to develop virtual simulation for minimally invasive surgeries such as arthroscopy, endoscopy, colonoscopy.

### **Requirement:**

The students should have Bachelor Degree in Computer Science or related field. The students in the projects should be hard worker, passionate and committed to pursue research.

### **Background Expectations:**

- Students should have solid background in C/C++ or C# programming.
- Familiar with multithreaded programming
- Passionate in game development, design, and research in computer graphics or Data Mining/Deep Learning.

### **Any of these items are plus:**

- Real time Interactive simulation
- Background/Experience with OpenGL or WebGL or any real-time graphics API
- CUDA/OpenCL/WebCL programming
- Expert level knowledge of GPU shaders
- Haptics Programming
- Experience with VR devices such as the Oculus Rift, HTC vive

### **Or the following expertise;**

- Data Machine Mining, Statistical analysis
- Deep Learning and Artificial Intelligence.

### **Application:**

Candidates should send the following documents to Associate Professor **Dr. Tansel Halic**([tanselh@uca.edu](mailto:tanselh@uca.edu))

- CV
- Transcripts
- Supporting documents that reflect their best work in regards to their previous experience

For more information about the lab, UCA and Computer Science Department web sites:

<http://sun0.cs.uca.edu/~thalic/> , [www.uca.edu](http://www.uca.edu) and <http://uca.edu/computerscience/>

