REU|2017

Summer Program for Interdisciplinary Research and Education – Emerging Interface Technologies (SPIRE – EIT)

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VR/AR

Exploring the use of Augmented/Virtual Reality for Engineering Manufacturing

Faculty: Eliot Winer (ewiner@iastate.edu)
Grad Mentors: Jonathan Schlueter (jschlu@iastate.edu), Melynda Hoover (mthoover@iastate.edu), and Stacy MacAllister (anastac@iastate.edu)
Interns: Brittney Hill, Emma Dodoo, and Austin Garcia

Team Meeting Location: JB Conference Room

As consumer products become increasingly complex, the associated manufacturing processes do also. Whether it is packing more features into a cell phone, car or airplane, manufacturers are under constant pressure to deliver these advanced capabilities faster and for less cost. This presents unique challenges for training and aiding the factory worker. Simply keeping the same manufacturing time from product release to release is a challenge, much less decreasing it while simultaneously increasing quality.

This project builds off of previous work done at the Virtual Reality Applications Center centered around the study of Augmented Reality (AR) to guide workers during the assembly of engineered products. In this project, the interns will research typical shop floor assembly and tooling operations, as well as current hardware and software used to construct AR and Virtual Reality (VR) environments. They will provide a recommendation on a suitable combination of hardware and software. Following this, they will build and program a functioning prototype to demonstrate guided assembly of a relatively simple product.

Search Site

Blogs

- Devi Acharya
- Katherine Atwell
- Natalie Blodgett
- Emanuel Bustamante
- Emma Dodoo
- Austin Garcia
- Brittney Hill
- Christopher Kawell
- Jameel Kelley
- Sofia Loya
- Sushi Schafer
- Alfredo Velasco II

Courses

- C++
- Maya
- Solidworks
- Intro to HCI
- Unity
- Craft of Research
- Journal Club
- Deeper Dives
  - Unity Shaders & GPU
  - Unity Immersive
  - 3-D Printing

Recent Posts

- Day 67: Goodbye, forever
- Day 66: Last day
- Day 64 and 65: Ice Skating and posters
- Airplane ride back to El Paso
- — one last post : long —
- Wrapping up (Sort of…)
- Almost Done
- Day 62 and 63: Last Monday, I Gave You My Heart
- Log Date 8 2 17 – Glossy
- its the LAST WEEK | WEEK 10(britt)
- Thirty Fourth Post
- Roomies Dine at Downtown Deli
- — #17 —
- The Final Week
- Last week here…

Recent Comments

- acgarcia on The Final Countdown
- blodgett on Roomies Dine at Downtown Deli
- edodoo on Roomies Dine at Downtown Deli
- amjasper on I Can See Clearly Now… wait
- avelasco on Day 60-61: Goodbye, Yellow Brick Road

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