Center for Computer Games and Virtual Worlds

Walt Scacchi and others

http://cgvw.ics.uci.edu

University of California, Irvine

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What are we doing?
- Empirical research and technology prototyping of CGVWs that support challenge problems in science, health care, energy, environmental, and defense studies

Why are we doing this?
- CGVWs are both technology and new media
  – this represents a new opportunity area for research and innovation
- Enable immersive and transformative experiences that facilitate learning through R&D and Play
- Engage new students and emerging scholars
Web-based science learning games for informal science education for K-6 students and families

http://www.DQOnline.org/

working in a cleanroom

- Suit made of ultra clean material
- Battery pack for air filter system
- 2 pairs of gloves (nylon & latex)
- 2 pieces of foot gear (disposable shoe covers & outer booties)
- Helmet includes air filter unit
- Will also wear hairnet & safety glasses
- Belt

Semiconductor/nanotechnology fabrication training game
Planetary science data visualization and “spherecasting” support: *NOAA Science on a Sphere* installation in *Opensim VW* platform

Supporting virtual planetary exploration and near-earth objects (space debris, small satellites, near-earth asteroids)
VW for experimental studies in decentralized command and control centers
Modeling and Simulating the design of a Personal Rapid Transit system for Uppsala, Sweden
Game-based VW incorporating real-world news feeds and geopolitically located Twitter feeds
Game-based VW simulator interfaces for immersive motorsports racing experiences
Game-based VW simulator you can actually drive in the physical world! -- OutRun @ UCI

http://www.conceptlab.com/outrun
CGVW Laboratory and experimental game devices
Computer games developed by UCI video game developers club (undergrad students)
Developed concept for IEEE Intercollegiate Computer Game Development Showcase

Intercollegiate Game Showcase 2012

Game Programming skills on Fire
Venue: Chapman University, Folino Theater
Saturday April 28, 2012

Compete in our Game Contest, Win Prizes, Earn Achievements & Fine Tune Your Skills

Game Event
details about game event
Venue: Chapman University, Folino Theater,
Saturday, April 28. Setup starts at 1:00. Main event starts at 2:00 and ends at 4:00...

Contest Parameters
know more about contest
All platforms are acceptable. Submissions will be judged based on originality, creativity and execution – and on whether they are fun to play...

Submission Guidelines
our submission rules etc.
Finalists will be selected based on YouTube videos 3 to 5 minutes long. These should demonstrate gameplay and key visuals and should include the name of the game...
New project: develop reusable framework for developing “science mission games”

Sample project: Capture near-earth asteroid
Research Collaborators

**Faculty**

**Post-Doctoral Scholars**
– Hazel Asuncion (UWash), Garnet Hertz (UCI), Chris Jensen (Google)

**Research Staff**
– Craig Brown, Yuzo Kanomata, Kari Nies, Alex Szeto

**External Partners**
– Aerospace Corp., Discovery Science Center, Encitra Inc., EON Reality Inc., Intel Research, Naval Postgraduate School, Northrop-Grumman, Panasonic Shikoku Electronics, San Francisco Symphony, UCI Calit2, UCI Video Game Developers Club, others.
HSSOE Faculty Interests in CGVW R&D

- EECS: *Mark Bachman* (play device/controllers)
- EECS: *Athina Markopoulou* (wireless multi-player game network engineering)
- MAE: *Marc Madou* (games for advanced nanotechnology manufacturing)
- MAE/BME: *David Reinkensmeyer* (game-centric assistive robotic therapeutic devices; iMove Center)
- CE: *Bill Cooper* (games for informal water science education; Urban Water Research Center)
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- Digital Industry Promotion (DIP) Agency, Daegu, South Korea
- UCI Video Game Developers Club

😊 No review, approval, or endorsement implied.