Senior Projects Win Awards at Design Expo

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Nearly 90 Computer Science seniors exhibited their projects at the Spring 2005 Engineering Design Expo, held recently in the Integrated Teaching and Learning Laboratory. These students are members of eighteen teams completing Senior Projects (CSCI 4308-CSCI 4318) this year.

More than 80 projects from throughout the College were exhibited at the expo. Three Senior Projects each received "Best in Group" awards. This recognition was given by industry judges based on interviews with each project team, demonstrations of each project, and evaluation of each project's results by the judges. Winners of this award for Computer Science were

- **ALICE** - *A 3D Media Player*
  sponsored by Sun Microsystems

  - **Cooper Porter**
  - **Benjamin Marsh**
  - **Neal Meier**
  - **Justin Legary**
  - **Daniel Lueth**

  Sun Microsystems has developed a 3D desktop environment called Project Looking Glass 3D (LG3D). The 3D desktop is built on top of Java3D, providing window management, application launching and other features needed for a useable desktop. Since LG3D was still in its early stages, there were no full-featured applications available for the LG3D environment. Sun needed a visually appealing application to highlight the possibilities and features available in LG3D. The goal of this project was to create such an application.

  ALICE is 3D media player, the first media application to utilize the 3D environment provided by Project Looking Glass. *ALICE* allows users to view and manage their music collection using an interface that is not limited by traditional 2D constraints. In addition to providing media player functionality, the project contributed high quality 2D text, scrolling windows, "corkscrew" layouts, and wrappers for an open source sound player to LG3D. The final product is a visually appealing demonstration application that Sun can use to help publicize the capabilities of Project Looking Glass.

- **concord** - *Technical Conference Administration System*
  sponsored by the IBM Corporation

  - **Marc Jenchura**
  - **Keith Busch**
  - **Brian Bobich**
  - **Jeffrey Rizzi**
  - **Brett Lefebvre**

  IBM often holds conferences which hundreds of employees attend. These conferences were organized by hand through the use of various word processing documents, spreadsheets, email and a considerable amount of manual processing of conference information and materials. This was a tedious, time-consuming and error-prone process.

  Project *concord* automated this process by providing a web-based tool that allows a non-technical conference administrator to create conference websites, manage online user registration, communicate with attendees via email and posted messages, and to generate reports on the current status of registration.

  A rather unique feature is the ability to create customized templates for name badges and "trading cards" -- personalized cards similar to sports trading cards that attendees can share with one another. These custom

name badges and trading cards can then be automatically generated and made available to all attendees at the conference.

- **Mirage** - *Location-Based Spatial Wiki*
  sponsored by Professor Dirk Grunwald

  - **Nels Anderson**
  - **Gaurav Kulkarni**
  - **Adam Bender**
  - **Anuradha Kumar**
  - **Isaac Sanders**

The concept of a location-based spatial wiki was developed by Professor Grunwald, the sponsor of the project. While the wiki concept is fairly new to the Internet, the general goal of a wiki is to bring the collaborative power of open source development to website design. All content on a wiki-based website is maintained by its users, who may or may not be subject to certain levels of access control.

This project's goal was to extend the functionality of a wiki by implementing a novel paradigm of web browsing based on location-dependent, dynamically deployed content -- the content a user sees is dependent on the location of the user interacting with the wiki. For example, a user accessing the wiki from the UMC may see a listing of events going on in the UMC at the current time. A user accessing the wiki from the Engineering Center Office Tower may be provided with floor plans showing the location of various faculty, department offices and conference rooms. A critical aspect of *Mirage* is that the users can not only view this information, but they can add to it as well.

Not only was the project successful from a software development standpoint, it was also very successful from a research standpoint. As a testament to the quality of the research, the team along with their sponsor submitted a paper to 2005 WEBIST (International Conference on Web Information Systems and Technologies). The paper was accepted and group members will present at the conference in Miami in May of this year.

The Senior Projects course was taught by **Bruce Sanders** along with teaching assistants **Jerry Sun** and **Gary Yee**.