CIS-6931 Special Topics - Advanced Topics in Information Processing

Catalog Description
Selected special topics in information processing. (3 credits.)

Prerequisites
Permission of the instructor.

Type
Advanced graduate course

Course Objectives
Awareness of frontiers of the current science of Information Processing.
Learn how to read, present and analyze conference style paper.
Identify and define a problem related to a predefined research topic.
Write a conference style paper.

Topics
Topic change annually. A recent offering of this course included the following topics.
- ALM (Application Life-circle Management) in Modern Practical Software Engineering
  Case Study: Team System for TerraFly development.
- Rich Internet Application #1: Flash + Internet-based API
  Case Study: TerraFly API.
- Rich Internet Application #2: AJAX Application
  Case Study: TerraFly Realtor + Water
- Mobile Application development
  Case Study: TerraFly Android, Window Mobile, iPhone Map application.
- Social Network Application
  Case Study: TerraFly Social network application for Realtors.
- Large volume/High performance Spatial Map Engine
  Case Study: TerraFly Map Engine. Storage, index, Query,
- Large volume/High performance Spatial Raster Engine
  Case Study: TerraFly Imagery Engine. Storage, index, Query
- High Availability system
  Case Study: TerraFly Network load balance, Auto-Fail over, Monitoring, backup, Hyper-V tech.
- Spatial Data Processing
  Case Study: STREE, Property Analysis project, data merging
- Spatial Data Processing
  Case Study: Spatial Keyword Search Engine (SKS)
- Building a High quality application
  Case Study: TerraFly Quality Assurance
- Build N-Ties Architecture and Design pattern
  Case Study: TerraFly architecture.
- Software configuration management: Source code version, promotion strategy and release management
  Case Study: Terrafly Team development
- High quality coding
  Case Study: coding in Terrafly Projects
- Building Fast Web application: N-tie Architecture, MVC & design pattern, ASP.Net, PHP, JSP
  Case Study: TerraFly Social Realtor, budget Survey Projects etc.

**Textbook**
Research papers to be distributed

**Last Update**
Naphtali Rishe 9/19/2012