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MatLab Report

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MatLab Report

July 9, 2008

Objective

The objective of this effort is to create a multidisciplinary approach to problem solving using technology. Through Thinkfinity, the Seidenberg School of Computer Science and Information Systems is collaborating with the science and quantitative faculty to create lessons that can be used by high school and first - year college students to work interactively with data to solve problems. MatLab is the tool of choice. It gives the user the ability to create visual models of large data sets and is used in the science and finance areas.

The key features of MatLab:

- Interactive tools for iterative exploration, design, and problem solving
- Mathematical functions for linear algebra, statistics, Fourier analysis, filtering, optimization, and numerical integration
- 2-D and 3-D graphics functions for visualizing data
- Tools for building custom graphical user interfaces
- Functions for integrating MATLAB based algorithms with external applications and languages, such as C, C++, Fortran, Java, COM, and Microsoft Excel.

Progress toward objective

A pilot of the CIS 101Introduction to Computing course using MatLab was conducted in the Spring 2008 term and was taught by Dr. Cha from Computer Science and Dr. Strahs from Biology departments. The pilot course materials will be refined during the Fall 2008 term in three sections of CIS 101. Two of the sections will be taught at the New York City campus and one on the Pleasantville campus.

Preparation of Faculty

To prepare faculty and staff, Dr. Cha created workshop materials and conducted a workshop on June 18, 2008. Below is the workshop agenda and the list of faculty and staff who attended the workshop.

Also attached are the workshop materials distributed at the workshop and a research article written by Dr. Cha.

Matlab Workshop 2008

Link to materials: http://csis.pace.edu/~scha/MatlabWorkshop.htm

by Sung-Hyuk Cha, scha@pace.edu
On June 18th 2008
Graduate Center rm TBA, White Plains, NY

This tutorial introduces basic Matlab features.

Time	Topics
1:00PM ~1:50PM	Image Processing and Steganography
2:00PM ~3:30PM	Numerical Taxonomy, Clustering, etc...
3:30PM ~4:30PM	Discussion and curriculum development...

Documentation from Mathworks

- MATLAB Roadmap
- Image Processing Toolbox

Attendance at Workshop

	Faculty	Email
1	Bonnie Gartner	bgartner@pace.edu
2	Ellen Tilzer	etilzer@pace.edu
3	Andreea Cotoranu	acotoranu@pace.edu
4	Lixin Tao	ltao@pace.edu
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