Toy Night 2014

Winners:

Jill Pala - 3D Printer Programming
Jonathan Geisler - Tinkertoys for git
Twisler - gradecam.com

Overall Winner: LeighAnn DeLyser - Finch et al

Professional Night notes

Barb Ericson's slide deck

Computer Science Honors Society:
Documents
Contact: Thomas Cooper

Java 8 Presentation

Code Sample

Toy Night Presentations:

Student Ignite talks

Short fast and adaptable presentations that can be easily brought into a course, Five minute max, limited words on slides, slides auto advance. This is great for increasing student communication skills and content knowledge.
Sample

Barrel of Monkeys

Data structures - great tool for examining linked lists, arrays and other such structures. Single color available everywhere, small barrels at Oriental Trading Co, Large multi-color Fisher Price first barrel of monkey on Amazon. Bribed the judges with their own barrels of monkeys :D

Linux treasure hunt

Create a treasure hunt to teach linux commands and skills. This can help get students used to the structure and manipulation of information using linux. It can also be used with any other OS :D

Alice

Alice now supports new Garfield models. There is also new method support as part of the Alice environment. Methods can be applied to types. It also allows for export to NetBeans and will provide support for Java 8 and lamda notation.

Finch Robots

Finch robots have lots of sensors and are easy to program using a variety of tools from block style programming to python and Java. Examples of programs for Finch are available at the academy for software engineering page Twitter race hashtag is one of the projects where the robots race based on the hashtags collected within the API for Twitter. See the site for more samples and projects.

Donated Supplies

Donorschoose.org is a crowd sourcing funding site for public schools. You present a project idea and they will support the money side of your needs.

Class Ideas

Gamification of the classroom - use lots of small assignments and define what is necessary point-wise for each grading session. Students can select their own track within the assignments for their score earning points in a nonlinear fashion similar to XP in manyRPG style games.

Social Interaction

dontbecreepy.com is designed to help students understand some of the implied social interactions that are not always understood by students especially those who are stereotypically associated with computers.

3D Printing

Openscad allows for 3D printing using code instead of just a drag/drop system for interaction. It is an open source project that uses a wikibook as its source of information. One of the tools provided allows segments to be cut from the design and Jill Pala's student used this to switch from a block, to a rounded block, toaster as well as adding a piece of toast to fit in the slots. insert movie link from pala

Git

Using version control is one of the more difficult concepts to address with students especially when looking at the logic and structure of the branching and adjustment of the current head. Michel Schwerin provided a presentation on using tinker toys as a manipulative to enhance the understanding of how the branching structure of the repository is built. youtube link here

Google Docs

Using google docs to create journals to identify student learning and interests.
Share the document at the beginning of the year and have students add to it and you can document actual growth.

Doctopus

Create master documents for google docs that can be shared/exported and distributed. This tool also allows you to embed a rubric as a part of the document :D

Differentiated assessment

Allow multiple students to excel in different areas/levels

Contests

Contests can be used to encourage student involvement and growth in computer science. Check with local companies as well as the CSTA for opportunites.

Current events

NPR.org and other sources often have articles about computing as well as computer science. Have students read the articles and then blog/journal about the computer science related topics. After a few of these have been completed students can then provide the articles for the class to use as the journaling source.

Splashtop

AP Potential Report

The AP Potential report for student recruiting information is a useful tool especially for recruiting. It is based on the results from the PSAT results and provides a predictor of the success of students in various AP programs. To get the information it is a good idea to get an "in" with you testing coordinator/principal/counselor to get this information. They can then provide the login for the schools report. This report is available each year. The login is best then you can build the report to your specifications.

Gradecam.com

This app/application provides the ability to quickly score multiple choice questions via a webcam or tablet device. If you are using the purchased version it is also able to generate data based on the student responses that is helpful in determining the efficacy of the questions.

Greenfoot projects- Students create plants v zombies