News Spring/Summer 2013

This page contains cumulative news items for the indicated semester. You can find the news from other semesters in our news archives at the bottom of the page.

Researchers Awarded $600K NSF Grant to Develop Construction GHG Assessment Tools

Researchers at Colorado State University have been awarded a $600,000 grant from the National Science Foundation to develop measurement and assessment tools to be integrated with existing architectural design software and building material databases to provide real-time, “on-the-fly” carbon footprint metrics. The metrics system will allow the architecture, engineering and construction industries to create an integrated design for a built environment with net-zero greenhouse gases. The project has been endorsed by the American Institute of Architects, the US Green Building Council, the National Institute for Building Science, the Rocky Mountain Institute and Architecture 2030.

The concept for a Carbon Footprint Metric (CFM) system for the built environment was developed as part of a Global Challenges Research Team in the interdisciplinary School of Global Environmental Sustainability, or SoGES, here at CSU. The interdisciplinary research team includes professors Robert France and Chuck Anderson from the Department of Computer Science, and faculty researchers and students from the Department of Soil and Crop Sciences, Department of Construction Management, Department of Mechanical Engineering, CSU Facilities Management, Institute for the Built Environment, and the National Renewal Energy Laboratory.

You may read the CSU press release here: CSU Press Release

You may read full articles here:

Today@CSU
Environmental Leader News

Professors Awarded $850,000 NSF Grant to Design Green Supercomputers

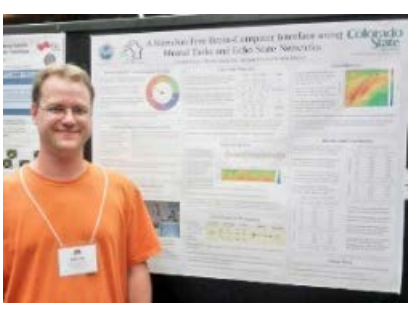
Dr. Sudeep Pasricha and Dr. H. J. Siegel, both joint professors with Computer Science and ECE, and Dr. Tony Maciejewski from ECE have received an $850,000 National Science Foundation award for the research proposal *Energy Efficient and Stochastically Robust Resource Allocation for Heterogeneous Computing.*

The research team will design novel theoretical foundations, metrics, and mathematical optimization techniques for robust, energy-efficient, and power-constrained resource management in heterogeneous large-scale parallel computing systems. In doing so, the research will attack rising energy consumption, which is one of the biggest challenges facing high-performance computing (HPC) systems today.You may read the full article here:
http://www.today.colostate.edu/story.aspx?id=8779

Northern Colorado Business Report Highlights Dr. Ruiz's Research Developing Smartphone Technology for the Visually Impaired

On June 28, The Northern Colorado Business Report published an article about Dr. Jaime Ruiz's work on using motion gestures to make smartphones more accessible to the visually impaired. You may read the full article here:
http://www.ncbr.com/article/20130628/EDITION/130629925?pagenumber=2

Ph.D. Candidate Elliott Forney Wins Best Poster Award



Congratulations to Computer Science Ph.D. candidate Elliott Forney who won the "Best Overall Poster" award out of 80 posters at the Fifth International Brain-Computer Interfaces Meeting, held at the Asilomar Conference Center, Pacific Grove, CA, June 3-7, 2013. His poster was titled
A Stimulus-Free Brain-Computer Interface using Mental Tasks and Echo State Networks
with co-authors C. Anderson (Elliott's advisor), W. Gavin from the Department of Human Development and Family Studies, and P. Davies from the Department of Occupational Therapy.

Dr. Shrideep Pallickara Hosts Math in Action in Computer Science Camp for Native American Middle School Students

In early June, seven Native American students from Cortez Middle School attended the week-long Math in Action in Computer Science Camp at the CS Department. This educational summer camp provides experiential learning where students have hands-on training with the math concepts they learned in school and their applications in computer science. The camp also includes sessions on how to apply to college and financial aid opportunities. The goals of the camp are to foster the students’ interest in math and science, help them successfully graduate from high school, and encourage college education in the STEM disciplines. The camp is part of the National Science Foundation Early CAREER award Dr. Pallickara received earlier this year and will be held every summer for five years. Click here to read the Today@CSU article.

Maggie Wigness Receives Anita Read Graduate Award

Congratulations to Maggie Wigness, who has received the Anita Read Graduate Award for 2012-2013. The Anita Read Graduate Award is given each year to a graduate student in Computer Science with demonstrated dedication to education and excellence in teaching. The recipient is selected by the Department faculty. To view a list of past recipients, please visit our webpage on Scholarships and Awards.

CS Program Named One of the 9 Best in the World

The Huffington Post has named the CSU Computer Science program one of the "9 Best Computer Science Programs in the World". Huffington Post contributor, David Thielen, cites our CS program as "a hidden gem" with "a strong community where students love programming for the pure joy of programming." We are proud of the students, faculty, and staff who make our department a great place to learn. Read the full Huffington Post article here:

http://www.huffingtonpost.com/david-thielen/the-9-best-computer-scien_b_3034171.html

Read the article on Today@CSU

Dr. Jaime Ruiz Receives Google Research Award

Congratulations to Dr. Jaime Ruiz, who has received a $50K Google Research Award for the project: *Using Audio Cues to Support Motion Gesture Interaction and Accessibility on Mobile Devices*. The goals of this grant are to perform research in scaffolding mechanisms, i.e., techniques that can allow novice users to master motion gestures as an input modality, and to determine the feasibility of using motion gestures to increase the accessibility of smartphone devices for visually impaired users. This is the first Google Research Award for CSU! Google Research Awards support the work of world-class full-time faculty members at top universities around the world performing cutting-edge research in Computer Science. During the most recent round, Google received almost 600 proposals from 46 different countries and decided to fund 102 projects, including this one from Dr. Ruiz.

Read the article published in the Northern Colorado Business Report
Read the article on Today@Colorado State

Upsilon Pi Epsilon Inducts New Members for 2013

The department is pleased to announce the new student and faculty members of Upsilon Pi Epsilon, who were inducted at a ceremony on April 11. UPE is the international honor society for the computing and information disciplines. To view a list of past inductees, please visit the UPE website at: http://www.cs.colostate.edu/upe/. Congratulations to:

Anwar Mubarak Aldosery, Madison Lawrence Weikum, Alexander Y. Kesler,
Dr. Christina Boucher, Dr. Jaime G. Ruiz

Dr. Shrideep Pallickara Receives NSF CAREER Award

Congratulations to Dr. Shrideep Pallickara, who has been awarded a five-year NSF CAREER grant for the project: *Robust Processing of Data Streams in Real Time*. This project investigates the problem of scheduling the processing of collections of streams of medical sensor data. The goal is to provide high-confidence, per-packet service guarantees that are robust to variability in the stream generation and concomitant changes in the loads at the distributed set of resources where streams are processed. This research has the potential to transform distributed stream processing and benefit healthcare, defense and homeland security, and experimental science. Dr. Pallickara will also use this research in an outreach program to teach fundamental math concepts to Native American middle school students in Cortez, Colorado.

CS Undergrads Win the 2013 International Collegiate Programming Championship

CSU Computer Science undergraduate students Chris Campbell, Jason Lewallen, Mike Oba, Brandon Schaffer, and Austin Walkup are "Team Meh" and the champions of the 2013 International Collegiate Programming Championships. Windward Code Wars is a national programming contest hosted by Windward of Boulder, CO. Twenty-nine schools entered with over a hundred teams. Students had eight hours to write an artificial intelligent agent to solve an intriguing problem involving the simulated town of Windwardopolis with high-tech companies, CEOs, and a limousine service that the team had to control. "Team Meh" won with an extended version of the A* search algorithm that they learned about in the course "CS440: Introduction to Artificial Intelligence." Each member of the winning team receives an HP Laptop and a Microsoft Surface Tablet, as well as special software. The CSU team "Fractal Cabbages" with Adam Allevato, Parker Malenke, and Kyle Smith placed 5th in the competition.

Full rules, results, and contest information can be found on the contest page at:
http://www.windward.net/code_war.php

Read the article about it in *Digital Journal* here: http://www.digitaljournal.com/pr/1039293

Read the article about it on Today @ Colorado State

Steve O'Hara Wins Best Student Paper Award at IEEE Workshop on Applications of Computer Vision (WACV)

Congratulations to Steve O'Hara for his Best Student Paper Award at the IEEE Workshop on Applications of Computer Vision (WACV). The paper, co-authored with Dr. Bruce Draper, is titled, *Are You Using the Right Approximate Nearest Neighbor Algorithm?* The Workshop on Applications of Computer Vision (WACV) is the anchor of the annual Winter Vision Meetings. WACV has a general scope with an emphasis on practical methods that support computer vision applications. This year, along with WACV, the Winter Vision Meetings consisted of the Workshop on Robotic Vision (WoRV), the Workshop on Performance Evaluation of Tracking and Surveillance (PETS), and the Workshop on User Centered Computer Vision (UCCV). WACV 2013 had about 80 accepted papers presented over two days. Each day, attendees voted on the Best Paper and Best Student Paper of the day. This paper was voted the Best Student Paper for the first day of the workshop.

Computer Science Senior Featured in Rocky Mountain Collegian

January is National Braille Month, and Computer Science senior Noah Habibi has been featured in a cover story by the Rocky Mountain Collegian. You can read the article here: http://www.collegian.com/2013/01/23/relevance-of-braille-proven-during-january-national-braille-month/

Sudeep Pasricha Selected for 2013 AFOSR Young Investigator Award for 2013

Dr. Sudeep Pasricha, Assistant Professor in the Department of Electrical and Computer Engineering, with a courtesy joint appointment in the Department of Computer Science, is one of 40 scientists and engineers who will receive approximately $15 million in grants from the Air Force Office of Scientific Research through its Young Investigator Research Program (AFOSR-YIP). The grant was awarded for Prof. Pasrichas research proposal, Integrated Optoelectronic Networks for Application-Driven Multicore Computing. The research aims to determine the best modalities for integrating emerging photonics technology into multicore electronic chips that drive all major modern inventions including vehicles and airplanes, computers and phones, scientific and industrial infrastructure, as well as military systems. In doing so, the research will lay the groundwork for realizing electronic systems that perform at much greater levels of efficiency, reliability, and cost-effectiveness than electronic systems today.

Fall 2012 Degrees Awarded

The Computer Science Department congratulates the following students on the completion of their undergraduate and graduate degrees in Fall 2012:

Master of Science

Matthew M. Malensek

Master of Computer Science

Steven M. Tranby, Paul J. Breaux, Timothy J. Metcalf, Benjamin J. Wright, Daniel R. Fynaardt, Gregory F. Gorsuch, Selvarani Janarthanan, Justin C. Bewley, Glenn F. Larsen, Daniel J McFaul, Madison L. Weikum, Roy D. Mobley, Matthew W. Barclay, Brighton S. Peterson, Kevin H. Nguyen, Tumenjargal Tumurchudur, Neil Hudson, Andrew C. Roswal, William F. Miller, David J. Alvillar, Awad A. Younis, Majdi K. Alnnfiai, James W. Vandergriff

Bachelor of Science

Tyler J. Brinks, Christopher A. Chapman, John D. Coleman, Christopher A. Cook, Luke S. Evans, Dustin S. Foudray, Robert T. Gallagher, Gavin M. Hanson, Wesley R. Hawes, Brian D. Hicks, Kayle L. Hoehn, Dereck W. Jacobsen, Dustin G. Lish, Matthew J. Massey, Adam C. Menges, Jason D. Miller, Shawn M. Nelsen, Michael K. Price, Hamilton J. Reed, Alan D. Reno, Nathaniel P. Schaaf, Andrew G. Shank, James P. Shepherd, Kyle W. Smith, Audra D. Snyder, Benjamin T. Sutton, Benjamin J. Vacha, Austin A. Walkup, Michael P. Winterscheidt