CENTER FOR COMPUTATION & TECHNOLOGY
Interdisciplinary | Innovative | Inventive

LOUISIANA STATE UNIVERSITY

CCT Weekly June 5- June 11, 2011

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CCT Weekly, June 7, 2011

LSU Trains Louisiana Students and Teachers at SuperComputing Camp

The LSU Center for Computation & Technology, or CCT, is holding their fourth annual Beowulf Boot Camp this week. The June 6-10th event will allow high school students and teachers a unique opportunity to learn the basics of supercomputing alongside university researchers at LSU.

The camp was created by LSU Professor Thomas Sterling, who invented the Beowulf supercomputing cluster in 1994, and his research group. Beowulf is a multi-computer architecture of inexpensive personal computer hardware that can be used for parallel computation. This class of computer clusters is now deployed worldwide, most commonly used in support of scientific computing, and represents more than 80 percent of the fastest 500 computers in the world.

"This particular LSU camp has been very popular for students planning to enter the field of computer science, engineering, or math," said Sterling. "In a very short period of time, the students are exposed to important motivating application domains like climate modeling and societal problems, the ways supercomputers in general and Beowulf clusters in particular help with these problems, and how supercomputers can be used for these important purposes through hands-on experience."

But Sterling emphasized that "far more important than the supercomputing itself, the Beowulf Bootcamp teaches the students about themselves, their intrinsic abilities, and their potential career opportunities. Barriers are dramatically reduced: many of them are visiting a university campus for the first time, they get a chance to meet and talk to college professors, and they do something that they could never have imagined doing. This builds their self-confidence and expands their self-esteem to an unprecedented degree. The goal is to get them to stay in high school, go to college, and in a few cases enter the field of information technology."

"The Beowulf Boot Camp is an initiative designed to raise the awareness of and interest in high performance computing in Louisiana high schools," said Steven Brandt, LSU CCT IT consultant and instructor for the Beowulf Boot Camp. "The goal is to familiarize students with all aspects of a supercomputer, giving them hands-on experience with touching or assembling hardware components. No less significant to the High Performance Computing adventure is an understanding of the software. Students not only install the operating system and run benchmarks, but they learn how to program. Our goal for the programming section is ambitious but focused: we seek to give the students a basic understanding of MPI."
The 2011 LSU Beowulf Boot Camp is sponsored by Hewlett-Packard, Advanced Micro Devices, and the LONI Institute (Louisiana Optical Network Initiative).

For more information on the camp or to get on the waiting list for next year's camp, visit: http://www.cct.lsu.edu/BeowulfSummerCamp.

CCT Spotlight: Blaise Bourdin

Blaise Bourdin joined the CCT as an adjunct faculty member in 2009, as part of the Coast to Cosmos Focus Area. He is an Associate Professor of Mathematics at LSU.

Blaise was born in Deuil la Barre, a small town ten miles North of Paris, France. He is married and has two dogs.

Blaise's current research includes applying Variational Fracture to a series of problems in material science and engineering, from drying of colloidal suspension, to hydraulic and thermal fracturing of geothermal systems.

In recent years, Blaise has become interested in the predictive understanding of reservoir stimulation for Enhanced Geothermal Systems, a clean and renewable source of energy.

When asked why he does what he does, Blaise said, "because it's fun and matches the way I think quite well."

To unwind, Blaise enjoys sailing and cooking. His favorite gadget is whatever is most recent, and he added, "which proves that they don't really matter so much."

Pats on the back:

•   Ram Ramanujam is a Co-PI on an award with Gerald Baumgartner from NSF titled "II-NEW: Research Software Infrastructure for Tensor Computations." The award is for $300,000 for three years.

Please Note:

•   On May 9th, Governor Jindal issued Executive Order BJ 2011-7 that directed executive branch agencies including higher education to cease spending in support (non-personnel) categories. Since the University has not received guidance on how to implement this executive order, LSU has developed operating guidelines to meet the spirit of the order through June 30, 2011. These Guidelines apply only to expenditures using State appropriated funds that are included in the University's FY 2010-11 Operating Budget and so identified with a zero in the sixth digit of the account number. Please contact CCT Business Manager Theresa Markey (tmarkey@cct.lsu.edu) with any questions.

•   Kathy Traxler is looking for faculty volunteers to work with the middle school girls in the Alice in Computation Land camp next week, June 13-17. Please contact her if you are interested (ktraxler@cct.lsu.edu)

•   The LSU Center for Computation & Technology will host for the first time the LSU iOS Application Boot Camp August 1-12 (10 day camp; not including weekends) on the LSU Campus. This new educational experience offers LSU undergraduates the opportunity to gain knowledge while enhancing their entrepreneurial spirit. Participants will work in groups to create their own operating App and have it loaded on their personal device by end of camp. Registration fee is $300. For more info and to register, visit http://www.cct.lsu.edu/iosbootcamp.

•   Registration is open for "Stop Motion Summer Camp," July 11-15, 2011. This exciting summer education opportunity offers high school students a unique opportunity to build upon their interests in animation. Registration fee is $125. For more information and to register, visit http://www.cct.lsu.edu/StopMotion

•   Applications for the SC11 Student Volunteer Program are open and close on August 12, 2011. Undergraduate and graduate students are encouraged to apply as volunteers to help with the administration of the conference. In exchange for volunteering, they will receive complimentary conference registration, housing, and most meals. In addition, limited support will be provided for transportation expenses (such as airfare) for international students and students from groups that traditionally have been underrepresented in HPC. For more information visit http://sc11.supercomputing.org/?pg=studvol.html or email student-vols@info.supercomputing.org.

•   LONI Technical Forum scheduled for July 18-19 at Pennington Biomedical Research Center is now accepting registrations. Participation is FREE. If you wish to suggest a topic for discussion, email Lonnie Leger at Lonnie@lsu.edu. For more information, visit: http://www.cct.lsu.edu/LONIForum2011

•   Prior approval is required for Special Meal Requests. Employees who make meal purchases without prior approvals may find that they must cover the cost of any monies spent for an unapproved event out of pocket, especially now that state funds are under a spending freeze. Please contact Susie Poskonka (susie@cct.lsu.edu) prior to any special meal with visitor(s) to file the appropriate request for approval. Prior approval could take up to two weeks, so please plan accordingly.

•   Please remember to send your news concerning grants, awards, conferences, or other pertinent information to CCT Event Coordinator Jennifer Fontenot at jennifer@cct.lsu.edu

•   Follow CCT with social media to access photos and see news, events or updated information. These pages are public; you do not need an account to view the information.
o   Facebook group : LSU Center for Computation & Technology
o   Twitter : LSUCCT
o   YouTube channel : LSUCCT

Upcoming events:

May 30- July 29: NSF Rearch Experience for Undergraduates
June 6-10: Beowulf Boot Camp
June 13-17: Alice in Computation Land Summer Camp
July 11-15: Stop Motion Animation Summer Camp
July 18-22: Alice in Computation Land Summer Camp
July 18-19: LONI Tech Forum
July 31- Aug 6: Computational Thinking from a Parallel Perspective
August 1- 12: iOS Boot Camp for LSU Undergraduates
August 9-11: SIGGRAPH (Booth #841), Vancouver, Canada

Upcoming Grant Deadlines:

Note: Please check the CCT deadline Web site , since it is updated daily.
Software Infrastructure for Sustained Innovation (SI2)
July 18, 2011 10:00 am
At Most $ 1,000,000.00 available

Faculty Early Career Development (CAREER) Program
July 23, 2011 10:00 am
At Least $ 400,000.00 available

Publish Date:
06-07-2011