Student Success Story

Research Project

Grid Enablement of Weather Research and Forecasting Software

Advisors

- Dr. Masoud Sadjadi, FIU
- Dr. Rosa Badia, Barcelona Supercomputing Center

Students

Marlon Bright, FIU Undergraduate, African American, US Citizen Javier Delgado, FIU Doctoral candidate, Hispanic, US Citizen



In this collaboration, which focused on profiling applications on different computer architectures in order to allow them to be optimized for execution on a grid of computers, Javier acted as a research mentor to Marlon. Their PIRE experiences inspired Marlon to pursue his doctoral degree in CS and Javier to pursue an academic career once he has his PhD. Javier and Marlon have expanded their research network to include a multi-core computer architecture expert, Dr. Hector Duran of the Universidad de Guadalajara.

Information and Contact

http://pire.fiu.edu

Yi Deng, PIRE PI Dean and Professor, FIU SCIS <u>deng@cis.fiu.edu</u>

Shu-Ching Chen, PIRE Co-PI Assoc. Professor, FIU SCIS <u>chens@cis.fiu.edu</u>

Borko Furht, PIRE Co-PI Chair and Professor, FAU CSE borko@cse.fau.edu

Pete Martinez, PIRE Co-PI Chairman, Florida Research Consortium Senior VP and Chief Technology Innovation Officer, The Quantum Group

S. Masoud Sadjadi, PIRE Co-PI Asst. Professor, FIU SCIS sadjadi@cis.fiu.edu



PIRE at the Sixth LA Grid Summit, 10/08

This material is based upon work supported by the National Science Foundation under Grant No. OISE-0730065. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation. PIRE: A Global Living Laboratory for Cyberinfrastructure Application Enablement









The FIU/FAU PIRE prepares its students to compete in the Global Information Technology Marketplace

International Collaboration

The Florida International University / Florida Atlantic University (FIU/FAU) PIRE is driven by a Framework that focuses Research on Cyberinfrastructure Application Enablement. In its first year, this multi-national university, industry, and National Supercomputing Center collaboration included five countries (Mexico, China, Spain, India, and Argentina) and seven (Universidad de Guadalajara, institutions Tsinghua University and IBM's China Research Laboratory, Universitat Politènica de Catalunya and the Barcelona Supercomputing Center, IBM's India Research Laboratory, and the Universidad Nacional de La Plata) through the participation of 18 students, 14 US research advisors, and 14 international collaborative advisors.

Student participants become part of an international network of researchers, building collaborations that will enhance career opportunities while gaining an understanding of the globalized information technology market; our PIRE's participants included the first "foreign" PhD students sponsored to perform collaborative research at IBM's China Research Lab and India Research Lab.

Student Diversity in PIRE

The FIU/FAU PIRE cohort of 2008-2009 was well balanced in terms of student diversity. Each university sent nine students and there was even distribution among student enrolled in BS, MS, and PhD programs. 33% of our students were female, 33% were Hispanic, and 22% were Black; this population is well above the typical representation enrolled in our nation's computer science and computer engineering programs.

Cyberinfrastructure Research Framework



Student-Centric Model



The FIU/FAU PIRE's student-centric model leverages each institution's commitment to Cyberinfrastructure research and to education in a way that benefits each participating institution. Participants begin their research collaboration and complete a cultural and language training program before they travel and continue their research collaboration upon their return.

One track of the Sixth LA Grid Summit, held in October 2008, was dedicated to learning about the research collaboration the PIRE students experienced in the summer of 2008. The Summit sponsored a poster contest showcasing the students' work as well as a panel of international faculty collaborators and PIRE students whose discussion focused on "How to Establish Sustainable International Research and Collaboration."