Collaborative Research Experiences for Undergraduates (CREU)

Mark Goadrich
Centenary College of Louisiana
CCSC Mid South 2013
CREU Details

• Collaborative REU for teams of students from underrepresented groups in CS
  – Women, Persons of Disability, African Americans, Hispanics, American Indians, Alaska Natives, Native Hawaiian, and Pacific Islanders

• Encourages consideration of research and graduate study as a career path

• Funded through NSF Broadening Participation in Computing (BPC) grant
CREU Details

• Academic Year Funding
  – $3000 stipend per student

• Optional Summer Funding
  – $4000 stipend per student
  – (10 weeks, 40hr / week)

• Travel/Equipment
  – Not to exceed $1500 per team

• No funding available for faculty
Our CREU Team 2010-2011

• Centenary College, LA
  – Kathryn Hardey ’12
  – Eren Corapcioglu ’12
  – Dr. Mark Goadrich

• Allegheny College, PA
  – Molly Mattis ’12
  – Dr. Matthew Jadud
Our CREU Team 2010-2011

• Exploring and Evolving Subsumptive Control for Real and Virtual Rescue Robots

• Academic Year Proposal
  – Build low-cost robot using Arduino
  – Program controller in parallel with occam-pi
  – Participate in Trinity College Fire Fighting Home Robot Contest

• Summer Proposal
  – Create simulator for contest environment
  – Evolve controller using genetic programming
Trinity Robotics Contest - April 2011
Full Paper at GECCO - July 2012
Lessons Learned

• Hold Weekly Meetings
  – Both local and remote

• Use Online Collaboration Tools
  – Skype chats, Google Docs, Subversion

• Allow for exploration and discovery

• Keep project achievable and grounded
CREU Information for 2013

• Approximately 6 page proposal

• Application Deadline: May 20, 2013
• Notification: June 14, 2013

• CREU Website
  "http://cra-w.org/creu"