WHAT IS OUTREACH?

Organized effort to influence the conversation about computer science education

Opportunity to engage in teacher development and support

Focus on inspiring K-12 students to develop their interest in computing, problem solving, and technology

Ability to expand the potential recruiting base for Purdue University
MAJOR CHALLENGES

PURDUE K-12 OUTREACH FOR COMPUTER SCIENCE

• Improving the understanding of what computer science is

• Finding the right context for computer science in K-12 curriculum

• Defeating the stereotypes that negatively affect the perception of computer scientists

• Developing opportunities for meaningful interventions
Indiana’s K-12 enrollment (2012-13): 1,041,311

Indiana AP CS A exams / total AP exams (2011-12): 247 / 65970 (0.37%)

Percentage of Purdue enrollees reporting (2012)
  • that they took no CS courses in high school: 37.5%
  • that they intended to major in CS: 4.1%

Fall 2013 Purdue CS
  • enrollees / total enrollees: 186 / 4768 (3.9%)
  • undergraduates: 878 / 29440 (3.0%)

http://compass.doe.in.gov/dashboard/overview.aspx
https://www.purdue.edu/enrollmentmanagement/researchanddata/studentdataindex.html
http://research.collegeboard.org/programs/ap/data/participation/2012
ADVENTURES IN CS CAMP 2013
PURDUE K-12 OUTREACH FOR COMPUTER SCIENCE

PURDUE UNIVERSITY
COMPUTER SCIENCE CAMP
2013
• Officially formed first Indiana-based chapter of CSTA

• Continued conversation about future of CS education in Indiana

• Encouraged membership to attend national meeting in Boston, MA
OUTREACH PROGRAMS 2013-14

PURDUE K-12 OUTREACH FOR COMPUTER SCIENCE

- Expanded **Adventures in CS Camp** for 2014
  - Middle school camp with increased enrollment
  - High school camp offering
OUTREACH PROGRAMS 2013-14

PURDUE K-12 OUTREACH FOR COMPUTER SCIENCE

- Mentorship program for high school girls in technology
  - University CS students mentor high school students
  - High school students mentor middle school students
  - Focus on programming, app development, web design, robotics
  - Corporate partner site visits
  - Semester end celebration
  - Fishers, IN and Hammond, IN
OUTREACH PROGRAMS 2013-14
PURDUE K-12 OUTREACH FOR COMPUTER SCIENCE

• **Elementary STEM Workshop**
  - Getting computational thinking activities in K-5 classrooms
  - Tynker and Scratch
  - Lego Mindstorms

• **New Community School Tech Club**
  - Technology club for K-7 students
  - Lafayette, IN
• **CSTA website and summer institute**
  - Aiding CS teachers with curriculum

• **CS Ed Week**
  - Raising awareness of CS education

• **ROCS and general outreach**
  - School visits
  - CS conferences and events
LAST REQUEST...
PURDUE K-12 OUTREACH FOR COMPUTER SCIENCE

SWAG

PURDUE UNIVERSITY