K-12 Outreach and Diversity in CS

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OUTREACH
• 21st Century Charter Gary (97% African American)
• Hackathon for URM students

RECRUITING
• Improved recruiting materials highlighting diversity initiatives
• HBC and HLC focus
• Student groups (NSBE, AISES)

RETENTION
• Focus on graduate TA training, incoming student cultural bias training
• Research opportunities for women and URM students through Center for Science of Information
• Conference opportunities
• Travel grant for female graduate students
OUTREACH UPDATES
PURDUE K-12 OUTREACH FOR COMPUTER SCIENCE

• Indiana K-8 CS Standards
• CS Summer Camp
• CS180x (Online AP CS A)
• MAGIC
• Newly adopted standards (K-2, 3-5, 6-8) that are included as part of the Science standards
• Divided into 5 strands
  • Data and Information
  • Computing Devices and Systems
  • Programs and Algorithms
  • Networking and Communication
  • Impact and Culture
• Tested in grades 4 and 6

• [http://www.doe.in.gov/standards/science-computer-science](http://www.doe.in.gov/standards/science-computer-science)
CS SUMMER CAMP 2017
PURDUE K-12 OUTREACH FOR COMPUTER SCIENCE

CS CAMP 2017
PURDUE UNIVERSITY
Online AP Computer Science A

Four six-week modules, covers all AP topics

1082 students, (24.1% female), 81 countries (55% US)

8 teachers in a special cohort

Students are able to take AP exam upon completion, and will receive high school credit in some cases.

Last year outcomes:
- ~10,000 students
- 65% had no formal CS
- Average AP exam score: 4.04
- 82% passing rate on AP exam

https://www.edx.org/course?search_query=cs180
MAGIC MENTORING
PURDUE K-12 OUTREACH FOR COMPUTER SCIENCE

• 60 high school women at 4 different high schools in Lafayette
• 25 college undergraduate mentors
• Weekly visits teaching computer science and exploring technology career paths
• Annual field trip
  • Luther Consulting 2015
  • Salesforce 2016
  • Syndicate Sales 2017
  • ??? 2018!
QUESTIONS?
PURDUE K-12 OUTREACH FOR COMPUTER SCIENCE