



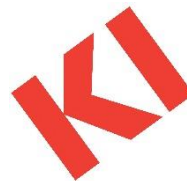
Digital Learning Opportunities Event

June 11, 2018

NEW IT Alliance



Connecting faith & finances for good.®



Regional Partners



...and Growing!

Thank You Sponsors!



Agenda

- 8:35 – 8:50: Computer Science Landscape
- 8:50– 9:05: Importance of our education system
- 9:05 – 9:45: Lightning Talks – Business Community
- 9:45 – 10:00: Round Table Discussion
- 10:00 – 10:15: Break
- 10:15 – 10:30: Importance of our education system
- 10:30 – 11:15: Lightning Talks: Education Community
- 11:15 – 11:30: Round Table Discussion
- 11:30 – 11:45: What did we hear today and how Microsoft is involved
- 11:45 – 12:00: Next Steps
- 12:00 – 1:00 Networking Lunch

WELCOME



Greg Bianchi
Microsoft Philanthropies
Program Manager



Michelle Schuler
Microsoft TechSpark
Manager Wisconsin



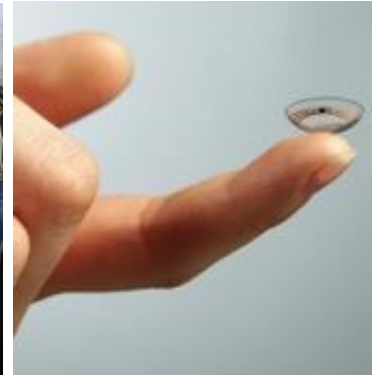
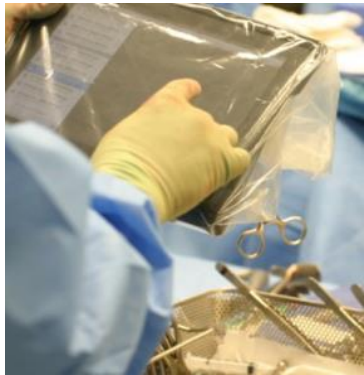
Yvonne Thomas
Microsoft Philanthropies
Director Global Programs



Advancing a future
that is for everyone.

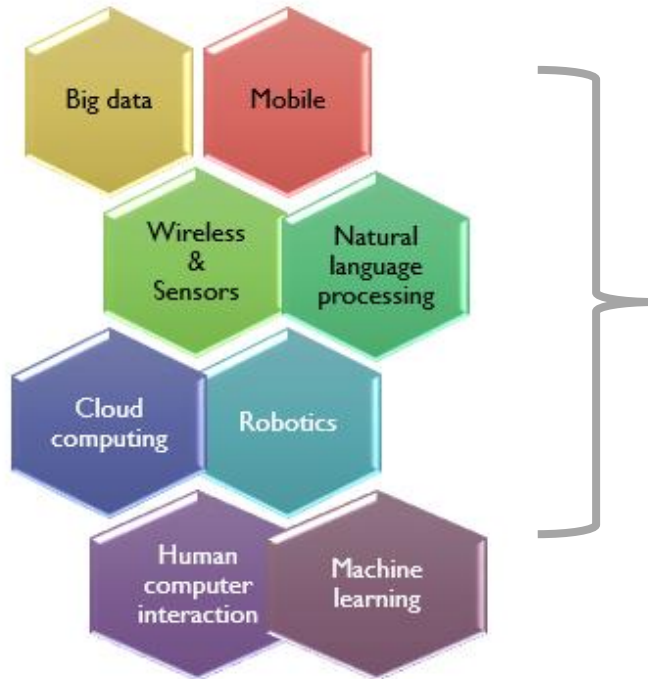


Technology affects **every** field:



67% of computing jobs are outside the tech industry

Principle areas of computer science and computer engineering



Impact Across Society

Medicine & Global Health

Energy & Sustainability

Security & Privacy

Transportation

Agriculture

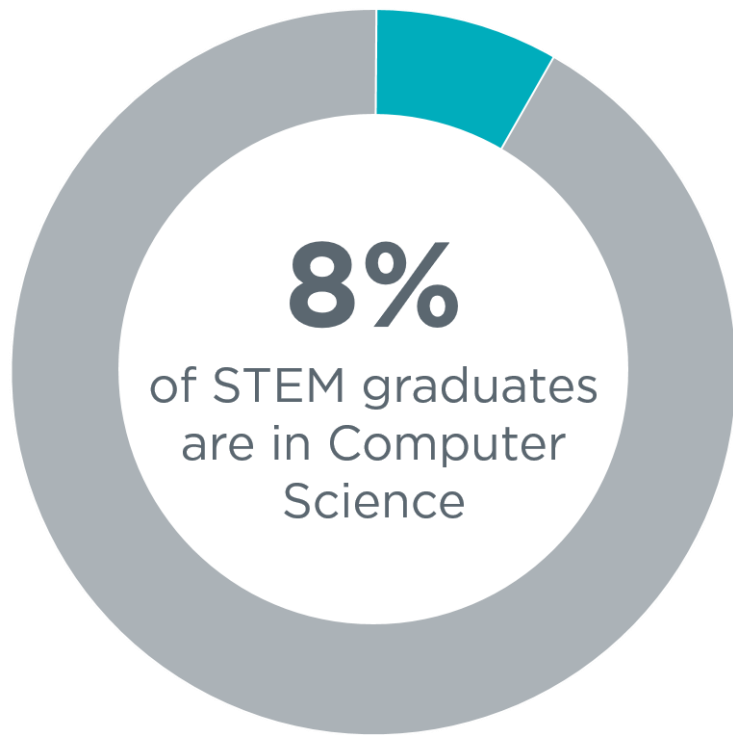
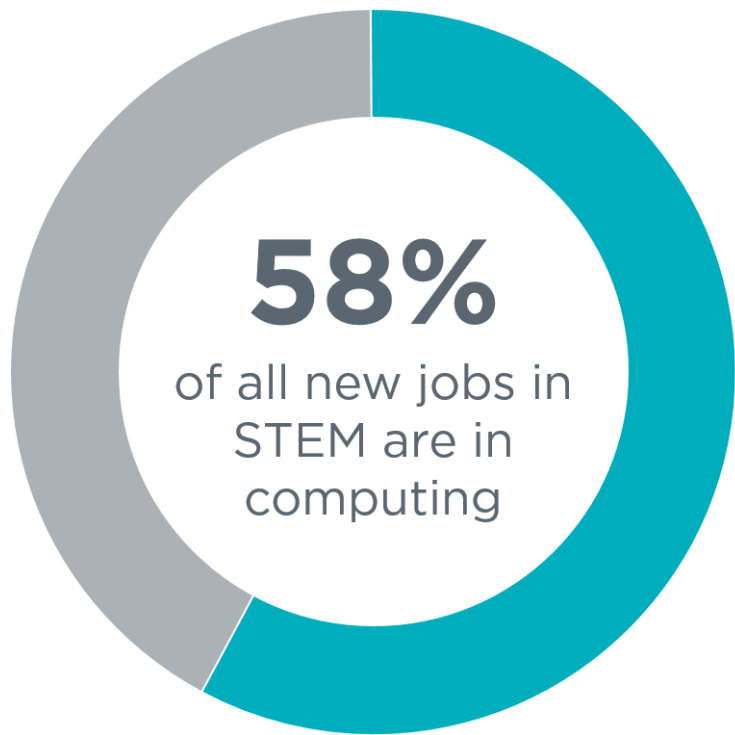
Education

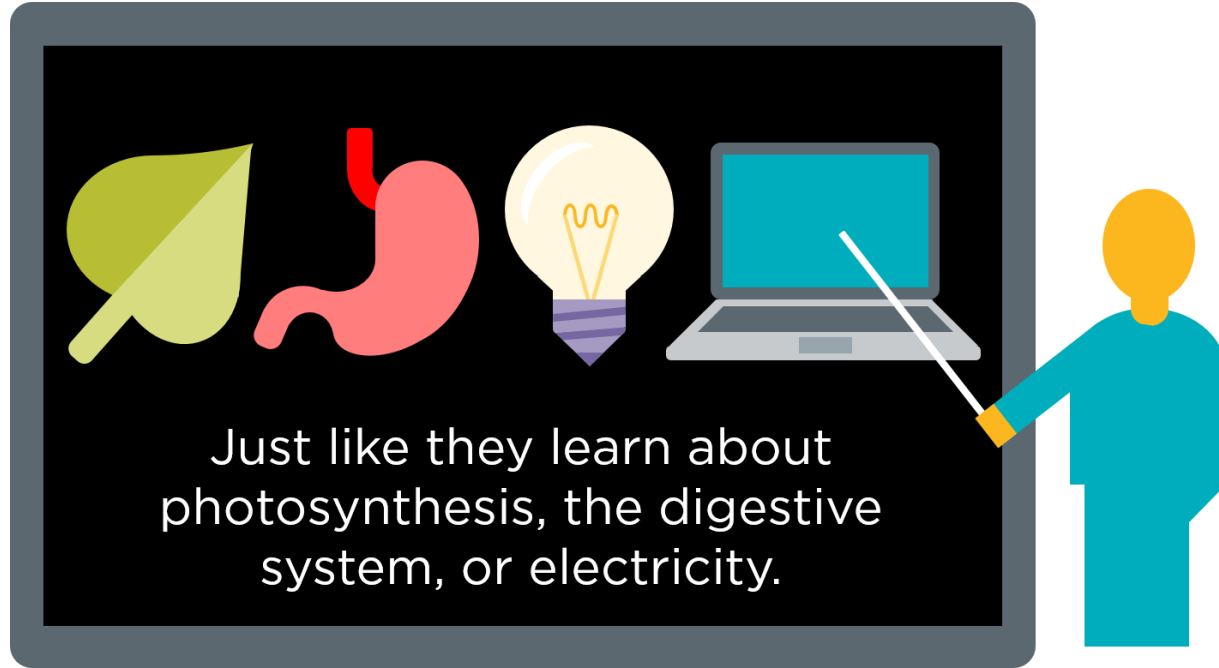
Scientific Discovery

Engineering

Commerce

The STEM problem **is in computer science:**





Every 21st
century
student should
have a chance
to learn about
algorithms,
how to make
apps, or how
the ***internet***
works.

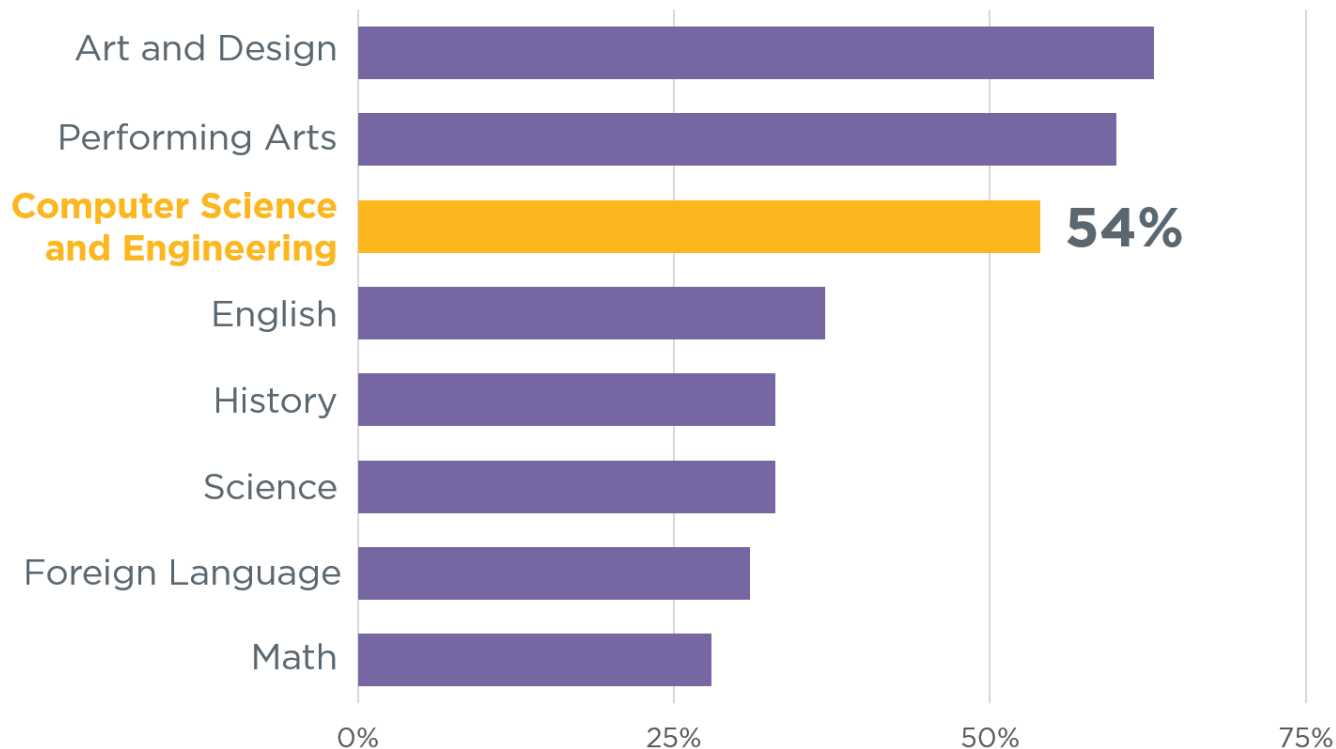
Some may think:
Computer science is just about
learning technology



Computer science is about logic, problem solving, and creativity

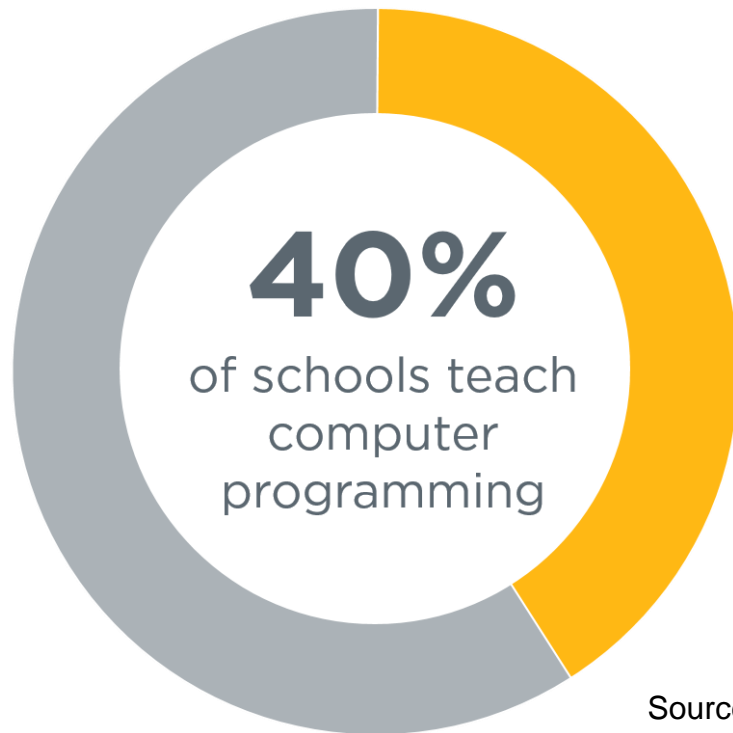
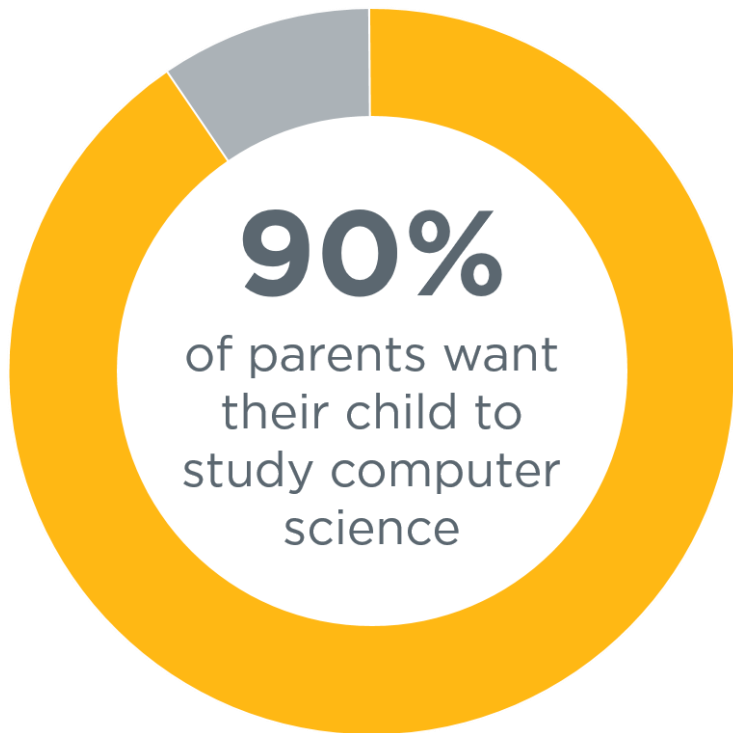


And students enjoy computer science and the arts the most



Source: Change the Equation

...but the majority of schools don't teach
computer science:



Source: Gallup

The picture in Wisconsin:

Industry and Higher Ed

- 7,705 open computing jobs*
- Yet only 918 CS graduates (15% Women)

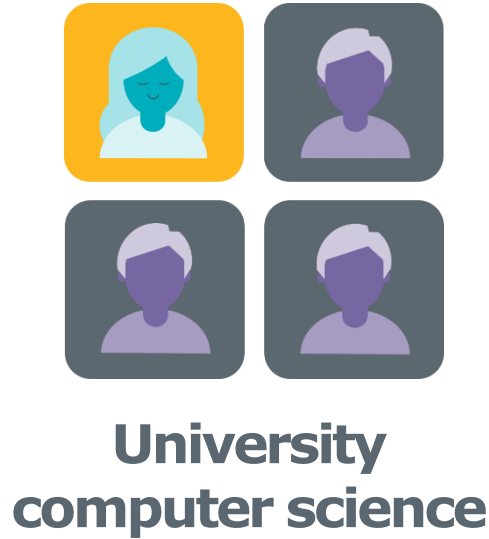
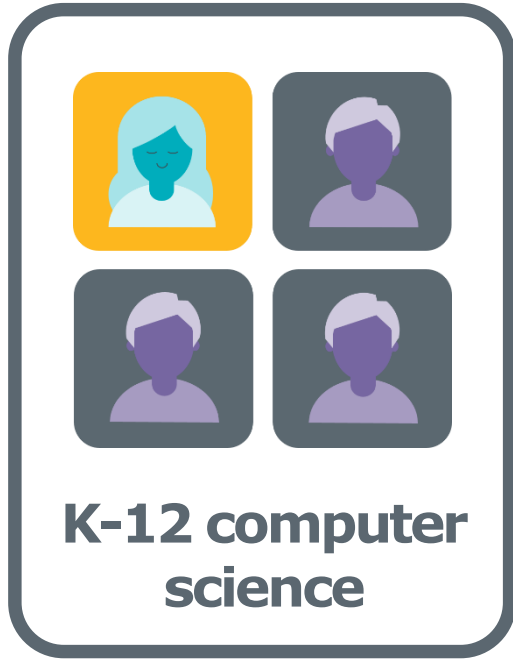
*In 2017, demand for computing jobs in Wisconsin was higher than any other occupation category, and this growth is projected to continue for much of the next decade.

The picture in Wisconsin:

K-12

- 68 WI high schools teach AP CS
This represents only 13% of schools offering AP programs
- Demographics of students taking AP CS
 - 17% Female
 - 5% Hispanic/Latino,
 - 1% Black,
 - <1% Native American

Improving tech's diversity starts in K-12



Women who try AP Computer Science in high school are ten times more likely to major in it in college, and Black and Hispanic students are seven times more likely.

Sources: College Board, National Center for Education Statistics, Bureau of Labor Statistics

WISCONSIN STANDARDS FOR
Computer Science



Wisconsin's Vision for CS

1. Introduce the fundamental concepts of CS to all students, beginning at the elementary school level;
2. Present CS at the secondary school level in a way that will be both accessible and worthy of a CS credit, or as a core graduation credit;
3. Offer additional secondary-level CS standards that will allow interested students to study facets of CS in depth and prepare them for entry into a career or college; and
4. Increase the knowledge of CS for all students, especially those from underrepresented groups in this field.

2018 Pilot
Computer Science Survey

Thank you!





Pilot Survey 2017-18 School Year

65% replied to survey

91% offer CS Courses

**100% offer extra-curricular
digital learning**

91% offer teacher training



What we Learned 2017-18 School Year

2016-17 School year 1036 WI
Students took the AP CS exam

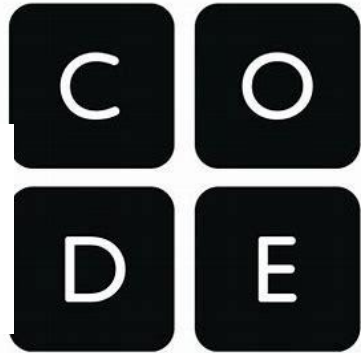
**55% surveyed offer AP
CS Program**

- **235 take a CS Class**
- **108 AP CS Exam**



What is the need facing youth served in the district, specific to CS?

- **Earlier/more exposure to Computer science**
- **Recruiting more girls**
- **More qualified & trained teachers**



How Can Partner Organizations Help

- **Teacher training**
- **Course pathways**
- **Industry mentors**
- **Recruiting for equity**
- **Community events**
- **Apprenticeship/Shadow**



Craig Dickman

StageThree, CEO

Breakthrough Fuel, Former CEO

Lightning Round - Community Leaders



Craig Dickman
StageThree
CEO



Ron Gilson
Johnsonville
CIO



Paul Schwartz
J. J. Keller
VP IT



Todd Whitenack
Nsight
CIO

Round Table: Business Community

- Given the data and comments shared this morning – what surprised you?
- How is your district (school board, teachers, curriculum directors) thinking about these issues?
- How are parents and students thinking or discussion or showing interest or not showing interest in these issues?
- What are some of the challenges involved in integrating and/or offering computer science education in your district?
- What are some of the accelerators involved in integrating and/or offering computer science education in your district?



BREAK

TIME TO STRETCH



Laura Schmidt

Strategic Advisor to the
Superintendent

School District of New
Berlin

Lightning Round - Education Leaders



Laura Schmidt
Strategic Advisor to
the Superintendent
School District of
New Berlin



Bob Mayfield
Superintendent
Kimberly School
District



Thomas Ellenbecker
Principal
Hortonville High
School



Sam Scheidermayer
12th Grade
Hortonville High
School



Jason Duff
Academic & Career
Planning Coordinator
Sheboygan School
District

Round Table: Education Community

- Thinking outside of the box, how are you exposing students to digital opportunities? (Clubs, events, hour of code)
- What was your "ah ha moment" that started your school focusing on computer science?
- What creative tactics are you using to get students into the classroom?
- What type of professional development are you looking at for teachers interested in digital skills and computer science? (TEALS – Co-Teach model, Code.org)
- How do you see the community helping your school district?
- What are some of the core challenges in growing computer science?
- Is there a success story of a student or teacher that has brought light to computer science in your district?



Michelle Schuler

Manager TechSpark WI
Microsoft



computer science in every high school

tealsk12.org

TEALS is generously supported by Microsoft Philanthropies

Every student should have the opportunity to study rigorous computer science in high school.

TEALS helps high schools build and grow sustainable computer science programs through partnerships between classroom teachers and tech industry volunteers.

Nonprofit
dedicated to
expanding access
to computer
science in schools
and increasing
participation by
women and
underrepresented
minorities.



To close the gender gap in technology



girls who
CODE

Help grow kids who are
prepared to thrive in life
today and careers
tomorrow



To enable all young people,
especially those who need
us most, to reach their full
potential as productive,
caring, responsible citizens



BOYS & GIRLS CLUB



Computer Science Camps and Workshops

Empower every
individual and
every organization
on the planet to
achieve more.



Microsoft

- Microsoft has deep and longstanding roots in helping people and communities gain access and benefit from technology skills.
- 3 years ago, the company made a commitment to further close the gaps in computer science education by investing \$75M
- Since then, we've been working hard on policy, on generating demand for computer science, and on building capacity in schools so that every young person can take a computer science course before they leave high school
- We're excited to be on this journey together – and ensuring that all students in our region will have this same opportunity.

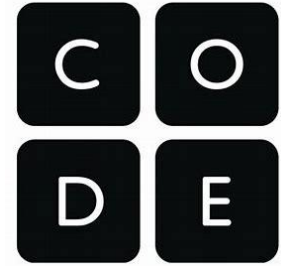


NEW IT Alliance Vision

By 2021 Northeast
Wisconsin employers will
have the IT talent to meet or
exceed their expectations

Next Steps

- Get teachers trained and certified
 - TEALS
 - Code.org
 - Training June 26 at NWTC
- Develop Information Technology/Computer Science pathway
 - TEALS
 - Code.org
 - AP Computer science
 - Dual credit classes





Most Importantly Get Started

- Start a computer science advisory board in your school or district
- Participate in the NEW K12 IT Advisory Board meetings kicking off in September; contact newitalliance@gmail.com for more information



SAVE THE DATE

NEW Connect IT Job and Career Fair

Date: Wednesday, November 14

Location: Lambeau Stadium

Register at
www.newconnectit.com





Green Bay, WI



THANK YOU
