Newsletter
November, 2018 (V12 N3)

Your CSN (CTN, SIGCT, SIGCS) Officers and Leadership Team provide this publication which is intended to notify you about CSN activities, ISTE 2019 conference info, upcoming events, notable news, resources, links and just about anything else that is useful for CSN members. To contribute to this newsletter, please email Joe Kmoch < joe@jkmoch.com>. Social media information (Facebook, pbworks Wiki, LinkedIn and Twitter) is located at the end of this newsletter. The entire CSN Leadership Team is listed on our wiki: http://istecsn.pbworks.com

Table of Contents:

    - ACSL Competition, first round ends Friday, December 21, 2018
- **Professional Development/Conference Opportunities**
    - **new** → Call for Speaker Proposals for CSTA 2019 Annual Conference
    - Univ of Texas-Austin CS Education Courses
    - sySTEMNow 2018 Conference, Nov 7, 2018, Milwaukee, WI
    - Scratch Day, December 1, 2018 at Columbia University, NYC
    - FETC 2019 - January 27-30, 2019, Orlando, FL
    - TCEA 2019 - February 4-8, 2019, San Antonio, TX
    - SIGCSE 2019 - February 27 - March 2, 2019, Minneapolis, MN
    - ISTE 2019, June, 23-26, Philadelphia, PA
    - **new** → Logo Foundation Summer Institute July 22-25, 2019 in NYC
    - CSTA 2019 Annual Conference, July 7-10, 2019, Phoenix, AZ

- **new** → **Your homework -** Three blog posts and two articles with one video
- **new** → **NCWIT**
    - Resource: Counselors for Computing including workshop
- **new** → Links: 20+ Javascript resources for HS Students, 99 Bottles of Beer, 50+ Killer Resources for CS Students

***

Hurry!!! New, Free Course on Computational Thinking

Introduction to Computational Thinking for Every Educator.

The computational thinking (CT) course developed with support from Google will provide you with a clear definition of CT, explain how it differs from computer science and unpack how it can be integrated into a variety of subject areas. As a course participant, you'll increase your awareness of CT, experiment with examples of CT-integrated activities for the subject areas you teach and create a plan to integrate CT into your own curricula.

Hurry - Enrollment for Fall Session closes Nov 5, 2018

***

Computer Science Network Events

Planning has begun for ISTE 2019 in Philadelphia, June 23-26, 2019

Consider volunteering for the following activities

*Please **fill out this form** if you are interested in volunteering...

- **CS Firehose** - Join the ISTE Computer Science Network as we open the valves and turn on the ***CS FIREHOSE 2019*** **with a very special set of sessions totally focused on computer science and computational thinking.** If you have ideas about potential keynote presenters, or just love to help with logistical planning, this is the volunteer opportunity for you. **Prepare to** get ***drenched*** with new and exciting CS info, resources, and ideas.

- **CS/CT Playground -** We continue our goals to engage those registering and to increase interest in computer science (CS) and computational thinking (CT). Our intent with the exhibits is to not duplicate sessions and posters which will occur abundantly throughout ISTE 2019. Instead we find opportunities to engage students and adults to demonstrate exciting technologies being used in classrooms. We need volunteers to help organize and facilitate the playground sessions during the ISTE conference.

- **CS/CT Strand** throughout the Conference - If you only have a few hours of time, but want to make a difference in CS education, volunteers will look for and recommend sessions to be identified as CSN Picks for the ISTE 2019 conference. We look for sessions we believe are particularly appropriate to CS and CT in addition to other CS-oriented strands based in other domains

- **The Third Annual CSN Excellence in Education Award.** This volunteer opportunity involves reaching out to 3-5 of your colleagues encouraging them to apply for this prestigious ISTE 2019 award. This award recognizes exceptional educators and leaders who are championing the cause of improved Computer Science and Information Technology education. Those recognized demonstrate exemplary work providing a model for teaching, learning and leading in this endeavor. Previous winners have been Kimberly Lane Clark (2017 and our current CSN President) and Jorge Valenzuela (2018 and now a CSN Leadership Team member)

- **CSN Members Discussion** -We are gathering volunteers who are passionate about discussing relevant CS topics. For this volunteer activity, ISTE Connect CSN members will be asked to moderate 1 question, 2 times per year on a topic you are passionate about. A calendar will be sent out so that you know which months you are responsible for.

Other CSN activities at ISTE 2019 will include:

- Focus on new ISTE Computer Science Educator Standards
- Involvement in the **ISTE Communities Networking Fair** (Professional Learning Networking Fair) on Sunday, June 23, 2019
- **Activities around our CS/CT book series**
- **Specific K-8 Activities** and Discussions.
- **Activities with our collaborators** - NCWIT, the local CSTA chapter, WeTeachCS.org, CS4TX.org and Code.org

If you are interested in helping develop these events or have additional ideas, please contact the editor of this newsletter <joe@jkmoch.com>

*** Plan on exciting times at ISTE 2019! ***

Computer Science Network News

Brand New → Standards for Educators: Computational Thinking Competencies were released in October, 2018. ISTE's goal is to help all learners become computational thinkers who can harness the power of computing to innovate and solve problems. These competencies are intended to help educators build those skills by integrating computational thinking (CT) across all disciplines and with students of all ages.
You can download them at <https://www.iste.org/standards/computational-thinking>
***

Interested in an awesome Professional Development Opportunity?

GRID Password = ISTE_csn (case sensitive)

updated → In November CSN continues our new PD model in which

you can earn badges and a final certificate for your Professional Portfolio (Educator Effectiveness) during the month of May. There will be videos, resources and ideas GALORE for each one of the new ISTE computer science standards!

You still have time to sign-up! Please post a quick 60 sec or less video introducing yourself to our PD community.

***

CSN Webinars: As we develop our CSN Webinar series into the future, we certainly invite your ideas and interest in volunteering. Please contact our Professional Development chair, Heidi Williams <heidi@stretchinstructor.com>, with your ideas and your interests. Eight webinars from previous years are at our wiki site <http://iste-ctn.wikispaces.net/Current+Webinars>

Computing Education News

Updated → **CS in K-8 #CSK8 Twitter Chats.** These popular hour-long Twitter chats continue on the 1st and 3rd Wednesdays of every month at 5pm PT/8pm ET for the 2018-2019 school year. Coming up: The November and December (12/5 only Twitter chats will be

- Nov 7: Cross Curricular Connections
- Nov 21: CS Ed Week
- Dec 5: Our Favorite Things

The co-leaders are Vicky Sedgwick and Sheena Vaidyanathan. Vicky and Sheena host a Google+ community for K-8 CS <https://plus.google.com/communities/1118dsaaa03101139836526905> and a Facebook group: <https://www.facebook.com/groups/CSTAK8/>. You can see their calendar at https://calendar.google.com/calendar/embed?src=8l8em5hfa1f8456abbicqac3r8%40group.calendar.google.com&ctz=America%2FLos_Angeles

***

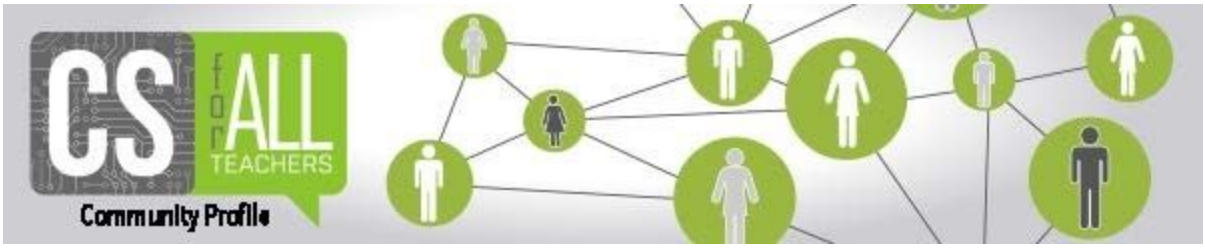
Updated → **The CSforALL 2018 Summit** was held in Detroit on Tuesday, October 9, 2018 and it was a resounding success! Videos and Photos are available at here. CSforALL Summit 2018 was bigger and better than ever with 294 organizations announcing 227 commitments to advance the #CSforALL movement — creating 47.3M CS opportunities for youth and educators, 105 organizations joined the CSforALL Accessibility Pledge, more than 550 community stakeholders joined in person, and 14K remote viewers tuned in on the live stream!

New → **NSF CS Bits and Bytes** - it's back!!! Highlighting innovative Computer Science Research. From the authors, "We have reinvigorated the *CS Bits & Bytes* newsletter and have an exciting line-up of issues for the year! We hope you enjoy our updated look to the series – since they are in PDF format we'll be sending you a link to the issue in our correspondence every two weeks. " Your feedback is welcome at CSBitsandBytes@nsf.gov To subscribe, please send a blank email to <csbytes-subscribe-request@listserv.nsf.gov>

Vol 5 #1: **BRAIN-CONTROLLED DRONES -** Have you ever wanted to move things using only your thoughts? This is an area of Human-Computer Interaction (HCI) research that many computer scientists are studying in order to control robots, like drones, with your BRAIN!

Vol 5 #2: **THE BIG DATA OF LYME DISEASE -** Did you know that creating maps of where your four-legged friend, Fido, and his canine friends have been bitten by Lyme-carrying ticks allows researchers to better predict if a person will get the disease? Lyme disease is a bacterial infection that is spread by tick bites, and affects 300,000 Americans every year. It has a range of symptoms and can mimic many other illnesses making it very difficult to diagnose, treat, and prevent. Researchers are using Big Data techniques to change this by using the power of computation to find and visualize patterns in massive sets of data.

*****



new stuff → **CS for All Newsletter.** This excellent resource is available if you Join the CSForAllTeachers Community and sign up for the CS for All Teachers Notifications and the Newsletter. Recent blog posts, upcoming webinars and resources are noted in their weekly newsletter. Here are recent entries:

BLOG POSTS:

- Welcome to our 2018-19 CS for All Teachers Community Ambassadors! published on 10/09/2018
- AIR and their CS for All Teachers community announce two new commitments for #CSforALL! published on 10/09/2018
- National Science Foundation @ CSforAll Summit - CS Bits & Bytes published on 10/09/2018
- CS for All Teachers is launching a Virtual CS Research Collaborative! published on 10/09/2018
- Let's get visual published on 10/05/2018
- Community Spotlight: Bobby Oommen published on 10/01/2018
- How Can Encouragement Increase Persistence in Computing? published on 09/21/2018
- Thank you, thank you, thank you! published on 08/13/2018

DISCUSSIONS:

- Help me make this INTERNET lesson better for everyone!! **published on 10/19/2018)**
- ECS Version 3.0 Unit 6 Python Files? **published on 10/16/2018)**
- Create and Use a Teaching Journal **published on 10/10/2018)**
- Resources, Part 2: Manipulatives & Devices YOU USE in your MS CS Classroom **published on 10/10/2018)**
- Welcome! How is your 2018-2019 school year going? **published on 10/07/2018)**
- How can Teacher Journaling Help? **published on 10/03/2018)**
- All You Need Is...RESOURCES!! (Sometimes love helps as well) **published on 10/03/2018)**
- Welcome and Introductions **published on 10/02/2018)**
- Welcome 2018-19 CSP Teachers! Please Introduce Yourselves **published on 10/02/2018)**
- Do you use Ed X? & Free Java Resources **published on 10/01/2018)**
- Unit 1 Assessment Help **published on 09/22/2018)**
- Welcome Back! **published on 09/12/2018)**
- Half-year of exploring computer science **published on 08/24/2018)**

UPCOMING EVENTS:

- **ECS v8 & What's New in the World of CS Education on 10/23/2018);** archived at **<**https://csforallteachers.org/event/ecs-v8-whats-new-world-cs-education**>**
- **Learning from Home: Online Professional Learning for Teachers of CS on 11/06/2018);** Description: Have you attended a face-to-face workshop and gotten hooked on computational thinking? Are you looking for ways to extend your knowledge in computer science education but donât know where to start? Come join us on Monday, November 5, at 7:30pm ET as we hear from representatives at the College of St. Scholastica and WeTeachCS talk about the virtual learning opportunities available to teachers. From a full certificate program to self-paced courses, thereâs something for all teachers. Join us and learn how you can expand your knowledge and skillsâall from the comfort of your own home. Access the meeting room here:http://air.adobeconnect.com/learningfromhome/. Audio information will appear once you've entered the meeting room. Choose dial-out for the best audio experience, or you may listen via computer speaker.
- **This is Computer Science?!! Another "Add-in" or Already There? on 11/09/2018);** Description: Is it possible to teach the fundamentals of computer science (CS) to your elementary students and not know them yourself? Probably! Regardless of whether your school has a 1:1 device initiative or none:1, we invite you to take part in an engaging webinar designed specifically for elementary teachers. Our focus will be integrating CS with math using âunpluggedâ activities. Join us on November 8, 2018 at 7:30 ET. Access the meeting room here: http://air.adobeconnect.com/nancy/. Audio information will appear once you've entered the meeting room. Choose dial-out for the best audio experience, or you may listen via computer speaker.
- **CS Education Week on 12/05/2018;** Description: Computer Science Education Week (CSEdWeek) is an annual program dedicated to inspiring K-12 students to take interest in computer science. CSEdWeek is held in recognition of the birthday of computing pioneer Admiral Grace Murray Hopper (December 9, 1906). https://csedweek.org/

- **ScratchEd meetups** Description: ScratchEd Meetups are peer-designed professional learning experiences inspired by the unconference model. This means that at any given event, you decide what your learning looks like! At a Meetup, you can share, create, and learn with other educators who are also passionate about teaching with Scratch in the classroom. Anyone who is interested in connecting with fellow educators and learning more about using Scratch in educational settings is welcome to participate. Learn more about the ScratchEd Meetups Network and find one near you! https://www.meetup.com/pro/scratched

RESOURCES:

- CS or Technology Podcast Recommendations **published on 10/25/2018)**
- Nicole's Journal Form **published on 10/17/2018)**
- Learning Dimensions Framework (from the Making / Tinkering field) **published on 10/17/2018)**
- How do you help your students develop critical spatial reasoning skills?? **published on 10/11/2018)**
- Teacher Journal Template **published on 10/10/2018)**
- Burst 1 (Teacher Journaling) Slide Deck **published on 10/03/2018)**
- (Hello World) The Magazine For Computing & Digital Making Educators **published on 09/18/2018**

Student Opportunities

reminder → **ACM/CSTA Cutler-Bell Prize in High School Computing.** This prize is designed to recognize talented hs students intending to continue their higher education in the areas of computer science or technology. Up to four winners will be selected annually and each will be

awarded $10,000 prize which will be administered through the financial aid department a the university the student will attend. The application period is open now and will close January 5, 2019 and winners are expected to be announced in February 2019.

reminder → **Code Quest 2018.** Grok Learning's Code Quest is a friendly five-week coding competition where thousands of school students come together to learn to code. Teachers can sign up their students, and students competing individually at home are also welcome! Streams available in Blockly, Python and micro:bit. The competition dates are from October 29, 2018 to December 2, 2018.

<https://groklearning.com/codequest/?utm_campaign=codequest-2018&utm_medium=email-non-users&utm_source=sci-com-today&short_url=get.gl%2Fcodequest18-scicom>

***

reminder → **Bebras Challenge (US).** November 5-16, 2018→ Bebras US Computational Thinking Challenge. Bebras is an international **computational thinking** challenge that started in Lithuania more than 10 years ago. Last year about 1,000,000 students participated globally. You can register as a teacher at <http://challenge.bebraschallenge.org/admin>. All USA students are welcome. There are contests for about 20 other nations, also. You can find the other nations' contests by going to <http://www.bebras.org/?q=countries>

If you go to <http://bebraschallenge.org > you can register for the November competition and can try the Practice Challenge (login not needed for practice). There is a document entitled Coordinators' Instructions available at <http://bebraschallenge.org/files/CoordinatorsInstructions.pdf>

More details→ Bebras is an international initiative whose goal is to promote computational thinking for teachers and students (ages 8-18 / school years 3-12). The challenges are made up of a set of short questions called Bebras tasks and are delivered via the cloud. The tasks can be answered without prior knowledge about computational thinking or computer science but are clearly related to computational thinking concepts. To solve the tasks, students are required to think in and about information, discrete structures, computation, data processing, and algorithmic concepts. Each Bebras task can both demonstrate an aspect of computational thinking and test the talent of the participant.

***

updated → **American Computer Science League** ACSL organizes computer science contests and computer programming contests for junior and senior high school students. In their 39th year of continuous operation, they are announcing an Elementary Division (grades 3-6). More information is available on their site.

Over 200 teams in the United States, Canada, Europe, Africa and Asia are participating. ACSL is on the approved activities list of the National Association of Secondary School Principals (NASSP) and is an institutional member of CSTA.

Their yearlong contest is in 4 rounds. The last day to give and score **round 1 is Friday, December 21, 2018**. This is worth checking into even if to just have access to their wealth of short answer and programming problems over the years. <http://www.acsl.org>

Professional Development/Conference Opportunities

New → University of Texas-Austin Computer Science Education Courses. UT-Austin has developed several courses that may be of interest to you. All of their courses can be currently found at https://stemcenter.utexas.edu/online-education

Foundations of Computer Science for Teachers. This course written by John Owen is a prep course for the Texas version of the ETS CS Praxis test. The Texas version is about 80% aligned to the newly released CS Praxis test. Many Texas teachers have taken this course and successfully passed the Praxis test. The cost is now $398 per teacher though $299 for CSTA+ members (that's the $50 per year membership not the free membership from CSTA).

Strategies for Effective Inclusive CS Teaching. This is a free course if you are willing to provide your own instructor. UT-Austin sets up a section of the course just for you in Canvas, provides a facilitator's guide. There is virtual training for a facilitator. You then run the course with your own cohort of teachers.

UT-Austin is working on a new course specifically aligned to the new Praxis test that they hope to release in March, 2019. This would be 100% aligned to the new Praxis

***

sySTEMnow-2018. This one day conference in Milwaukee, WI, is scheduled for Tuesday, November 7, 2018. Kelly List Wells, Executive Director for Education and Skills at the GE Foundation, is the keynote speaker. In its 15th year, this regional conference attracts both educators and businesses interested in raising awareness of STEM-related issues including best practices, developing education-workforce partnerships and providing networking opportunities for STEM stakeholders. In recent years there has been a strong strand of computer science sessions. Further information is available at <http://www.stemforward.org/systemnow/>

SCRATCH DAY - Plans are already being made for the next Scratch Day on December 1, 2018 at Teachers College, Columbia University, New York City. There will be workshops on a wide range of Scratch topics for Scratch beginners and those who have been Scratching for years. Scratch Day is for people of all ages

- Teachers, bring your students!
- Parents, bring your children!
- Children, bring your parents and teachers!

Please go to <http://logofoundation.org/scratchday> to see what happened at Scratch Day in December, 2017 and in previous years.

FETC-2019. This is the 39th national Future of Education Technology Conference which will be held in Orlando, FL from January 27-30, 2019. Similar in some respects to TCEA and ISTE, FETC does include sessions involving computer science, computational thinking and teaching IT. There will also be a CS Firehose similar to the one at recent ISTE annual conferences. <http://fetc.org>

TCEA-2019. The 39th Annual TCEA Convention and Exposition will showcase over 1000 sessions and 450 exhibitors for every educator to discover new ways to engage students and enhance learning. The conference includes sessions related to

computer science, computational thinking and teaching IT. TCEA-2019 runs from February 4-8, 2019 in San Antonio, TX. Registration opens September 13, 2018. <http://tceaconvention.org>

SIGCSE 2019. To be held in Minneapolis, MN, February 27-March 2, 2019, the theme for SIGCSE 2019 is Celebrating our 50th Anniversary. SIGCSE 2019 welcomes over 1500 colleagues from around the world to present demos, lightning talks, papers, panels, posters, special sessions, and workshops, and to discuss computer science education in birds-of-a-feather sessions and informal settings. The SIGCSE Technical Symposium addresses problems common among educators working to develop, implement and/or evaluate computing programs, curricula, and courses. The symposium provides a forum for sharing new ideas for syllabi, laboratories, and other elements of teaching and pedagogy, at all levels of instruction. <http://sigcse2019.sigcse.org>

Logo Summer Institute - The 2019 Logo Summer Institute will be at the Spence School in New York City, July 22-25, 2019. The Logo Summer Institute is an intensive immersion in creative computing for K12 teachers, parents, and technology integrators. Our project-based approach supports computational thinking, and STEAM learning and teaching. The program is highly individualized to accommodate novices as well as more experienced participants, teachers of different subjects, and those who work in after-school programs and other informal settings as well as in classrooms. Registration is open now.
<https://www.eventbrite.com/e/logo-summer-institute-2019-spence-tickets-51072936528?ref=ebtn>

CSTA 2019 Annual Conference. Get ready for this always excellent conference totally focused on K-12 computer science. The dates are July 7-10, 2019 in Phoenix, AZ. Plenty of workshops, sessions, opportunities to network and have fun together with colleagues from across the country who share the same joys. More info coming in the next several months.

Brand New → Call for Proposals- Applications are now open to present at the 20th anniversary CSTA Annual Conference, July 7-10, 2019 in Phoenix, Arizona. **Submit your application by 11:59 PM PT December 2nd, 2018**. We encourage educators from all grades and experience levels to consider submitting a proposal.

We're looking for proposals from educators that are:

- Engaging and collaborative. Think beyond the lecture and devise new ways to engage your audience.
- Led by educators, and grounded in the everyday practice of teaching and learning.
- Targeted to specific grade bands and/or experience levels, with guidance for participants to easily determine what's appropriate for their needs.
- Aligned to the CSTA Standards.

This year, the conference is seeking proposals for three-hour workshops; one-hour sessions; 20 minute mini-sessions; and 1 hour Birds of a Feather conversations. Full details can be found at **here**.

***

NEW → *Your Reading Assignments*

From our 2018 CSN Educator of the Year Award Jorge Valenzuela
How-to blog(s) (Project-Based Learning, Computer Science & STEAM):

- **3 ways to prepare students for computer science jobs**
- **Robotics demystified in 4 steps**
- **Embed computational thinking into PBL**

Developing Computational Thinking Skills in Elementary Students. Author Sarah Van Loo writes "As a science, technology, engineering, arts, and math (STEAM) educator, one of the subjects I teach is coding. My elementary school students enjoy coding; however, some students have a difficult time with large, complex coding projects because they struggle with breaking problems into smaller problems and also with debugging their code when it does not work properly.

In an attempt to help my struggling learners, I conducted a literature review of 18 peer-reviewed research articles. Through that research, I discovered interventions for struggling students and a recommendation for implementing a comprehensive K-6 computer science curriculum.
To learn more, please read my research report, Developing Computational Thinking Skills in Elementary Students, or watch my five-minute overview video.

On Learning to Code (for 2019). This article by Daniel Borowski may be oriented toward a college-level computer science students, you'll get a taste of what's to come for your students in the near future. He focuses on three ideas that have at least some relevance in the classroom and our planning.
<https://medium.com/coderbyte/on-learning-to-code-for-2019-aa086284a218>

… From the October, 2018 issue of this newsletter

From our 2018 CSN Educator of the Year Award Jorge Valenzuela
How-to blog(s) (Advocacy & Equity):

- **EdTech Advocacy in 3 Easy Steps**
- **Equity in Computer Science Education**

Technologeez: How computers store stuff. Blogger Natalie Mead is a San Franciscan software engineer, who is answering questions about technology she asked her readers to share with her. This post is a very good response to the question "*I don't actually understand how memory works. How is it possible for so much information to be stored on a tiny chip?"* <https://medium.com/@nlynnmead/technologeez-how-computers-store-stuff-69487e2c05db> She has other posts that you might find interesting at <https://medium.com/@nlynnmead>

The gender gap starts in ninth grade - why do fewer girls rise up the ranks in math class. While this obviously focuses on math many of our CS teachers are or have been math teachers. Also a lot of what's discussed applies to our computer science and information technology classes. Perhaps this could be a good basis for a discussion within our ISTE CSN Discussion group? <https://www.marketwatch.com/story/the-gender-gap-starts-in-ninth-grade-2018-08-20>

… From the September, 2018 issue of this newsletter

From our 2018 CSN Educator of the Year Award Jorge Valenzuela
How-to blog(s) (Computer Science & STEM):

- **How to Develop Computational Thinkers**
- **Computer Programming in 4 Steps**

2018 (Software) Developer Skills Report
The site Hackerrank surveyed their community to get a pulse on developer skills (when did they push code for the first time, how do they learn coding, what are the favorite languages and frameworks, what do they want in a job, what hiring managers want in a candidate, and more).

Some results I found interesting:

- Even though new languages arise frequently, it's most important for developers to master core, legacy languages. By and large, employers' most common requirement today are: JavaScript, Java, Python, C++, and C. (pg 3)
- Frameworks: JavaScript is ruling the web. Most often, employers want developers who know AngularJS, Node.js, and React. (pg 3)
- Demonstrating computational thinking or the ability to break down large, complex problems is just as valuable (if not more so) than the baseline technical skills required for a job. (pg 4)
- There's a popular belief that recruiters favor candidates with CS degrees from prestigious universities. But it turns out that they actually care about what you've done (pg 4)
- Companies are looking at GitHub and projects to supplement resumes and evaluate skills better (pg 4)

Monthly CSN Newsletter readings October 2012 - June 2018
<*http://istecsn.pbworks.com/w/page/125926169/Monthly-Newsletter-Readings*>

***

National Center for Women and IT (www.ncwit.org)

The National Center for Women & Information Technology (NCWIT) is a non-profit community of more than 1,100 universities, companies, nonprofits, and government organizations nationwide working to increase girls' and women's meaningful participation in computing. NCWIT equips change leaders with resources for taking action in recruiting, retaining, and advancing women from K–12 and higher education through industry and entrepreneurial careers. Find out more at www.ncwit.org/resources or email us at info@ncwit.org

NCWIT Resource of the Month:

Counselors for Computing (C4C)
http://www.ncwit.org/project/counselors-computing-c4c

Counselors for Computing (C4C) provides school counselors with up-to-date information and resources they can use to guide students toward education and careers in computing.

Upcoming C4C Workshop in Wisconsin. At the Wisconsin School Counselors Association (WSCA) the C4C Team at NCWIT is running a 4-hour workshop on Thursday, February 7, 2018. The workshop will be held in conjunction with the WSCA annual conference in Madison, WI at the Monona Terrace Convention Center. Flyer here.

Use C4C Resources

The following materials are available as individual items. If you would like C4C Kits sent to you, please complete this form.

- **C4C Webinar** View the workshop with your counselor colleagues and learn key tips for advising (.wmv file)
- **C4C Slide Presentation** Download and present in a workshop (PPT; includes script)
- **C4C Information Sheet** Learn more about the C4C campaign and get the big picture about technical education and careers
- **Counselor Talking Points** Get key points to convey to students and parents about computing education and careers

Careers With Code Posters

- **What's Your Coding Super Power? (C4C Poster 24"x36")**
  This poster lets students see that combining computer science with things they're passionate about can give them the skills to make a real difference in the world.
- **Life in Code (C4C Poster 24"x36")**
  This poster shows that computer science is integral to daily life — even if you can't see it. You might ask students, "What else belongs on this poster?"
- **Mission Possible (C4C Poster 24"x36")**
  With this poster, students see just ten of the many ways computer science is making the world a better place. Encourage them to imagine more.
- **Intersecting Pathways Poster (24"x36")** Show students that no matter where they start, multiple pathways lead to quality jobs

Visit www.ncwit.org/resources for additional resources; email info@ncwit.org to request hardcopy resources.

****

Several links...

If you have favorite links you'd like to share (we could use some on IT topics such as networking, support, information systems and web design), please email Joe Kmoch.
< joe@jkmoch.com >

This month…

20+ Javascript Resources for HS Students - here is a list of both free and low cost resources that you can use with your programming students.
<https://ezk12lessons.com/20-javascript-resources-for-high-schoolers/>

99 Bottles of Beer… Here's a fun website (you can substitute your favorite (and even non-alcoholic) beverage). This website holds a collection of this song programmed in about

1500 programming languages and variations. <http://www.99-bottles-of-beer.net>

50+ Killer Resources for Computer Science Students - all kinds of interesting stuff, some of it more geared to college students, but most pretty interesting.

****

Contact Joe Kmoch <joe@jkmoch.com> to include an item in the next issue.
Social media links:

- CSN Community: <http://bit.ly/computing_teachers_network> (site registration needed)
- CSN on Facebook: <https://www.facebook.com/pages/ISTE-CTN/132261473482000>
- CSN on ISTE Wiki: <http://iste-csn.wikispaces.com> also <http://istecsn.pbworks.com>
- CSN on LinkedIn: <https://www.linkedin.com/groups/6784194/profile>
- CSN on Twitter: <https://twitter.com/ISTE_CTN>