Resources for Computer Science Teachers

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tiny.cc/csresources

The University of Texas at Austin
Center for STEM Education
College of Education

Professional Development

WeTeachCS

WeTeachCS – Overview

WeTeachCS – *Central Texas* Teacher Professional Development Opportunities

Date	Event
Jan. 23-Feb. 28, 2016 *Austin*	**STEMpreneurship Teacher Workshops** With Raspberry Pi in partnership with student program and 3 Day Start Up; **Registration Closed**
February 24-25, 2016 *Austin*	**CSP Mini-Conference** CS Principles Mini-Conference: **Registration Open**
June 7-9, 2016 *Austin*	**CS Summit** App Inventor, AP CS Principles, Resources for teaching CS, Scratch, Python, Developing 4-year course sequences
June 13-16, 2016 *Austin*	**College Board APSI** * Computer Science Principles
July 6-8, 2016 *Austin*	**First Bytes Teacher Workshop** Partnership with UT Austin Dept. of Computer Science
July 11-14, 2016 *Austin*	**College Board APSI** * Computer Science A for NEW CS teachers
July 25-28, 2016 *Austin*	**College Board APSI in partnership with TCU** * Computer Science A for EXPERIENCED CS teachers

* TRC is paying for travel and lodging – details TBD

WeTeachCS – *Statewide* Teacher Professional Development Opportunities (1)

Teach CS	January 13-14, 2016	Austin
STEMpreneurship Teacher Workshop	January 23-February 28, 2016	Austin
TRC CS Network Mixer	Feb 3, 2016	Austin
CSP Mini-Conference	February 24-25, 2016	Austin
Teach CS	March 15-16, 2016	Austin
CS Summit	June 7-9, 2016	Austin
TRC Annual Meeting	June 21-23, 2016	Austin
First Bytes Teacher Workshop	July 6-8, 2016	Austin
Hands-On with Security and Nature workshops	April 2016	College Station
Hands-On with Hardware workshops	March 2016	College Station
AP CS Principles workshop	June 2016	College Station
Bootstrap: Video Game Programming with Algebra	May 14, 16, & 17, 2016	Dallas
Summer Institute	*Unknown*	Dallas
5 day Training-of-Trainers (TOT)	*Unknown*	Dallas
Teach CS	Unknown	Dallas
Teach CS at Houston ISD	March 22-23, 2016	Houston
Introduction to Coding and Computational Thinking	June 13-15, 2016	Houston
Bootstrap: Video Game Programming with Algebra	June 27-29, 2016	Houston
Teach CS at ESC 18	May 6-7, 2016	Midland

WeTeachCS – *Statewide* Teacher Professional Development Opportunities (2)

Basics of computational thinking into core content classroom activities	Jan/Feb 2016 (2 Saturdays)	Rio Grande Valley
Incorporation of computational thinking activities into grade/content specific teacher created lesson exemplars	May 2016 (Saturday)	Rio Grande Valley
Conference for the Advancement of Mathematics Teaching (CAMT)	June 29-July 1, 2016	San Antonio
Scratch	*Unknown*	Tyler
Robotics	*Unknown*	Tyler
Mobile app development	*Unknown*	Tyler
Bring business partners together with area teachers and district personnel	*Unknown*	Tyler
College Board APSI (Computer Science Principles)	June 13-16, 2016	*Location TBA*
College Board APSI (for NEW teachers)	July 11-14, 2016	*Location TBA*
College Board APSI (for EXPERIENCED teachers)	July 25-28, 2016	*Location TBA*
Keep Calm and Java On (Java Programming)	Feb 2016	Online
KCJO Spring Cohort (Java Fundamentals)	March 21st - May 11th	Online
KCJO Spring Cohort (Java Programming)	May 16-25, 2016	Online

Keep Calm and Java On – Spring 2016

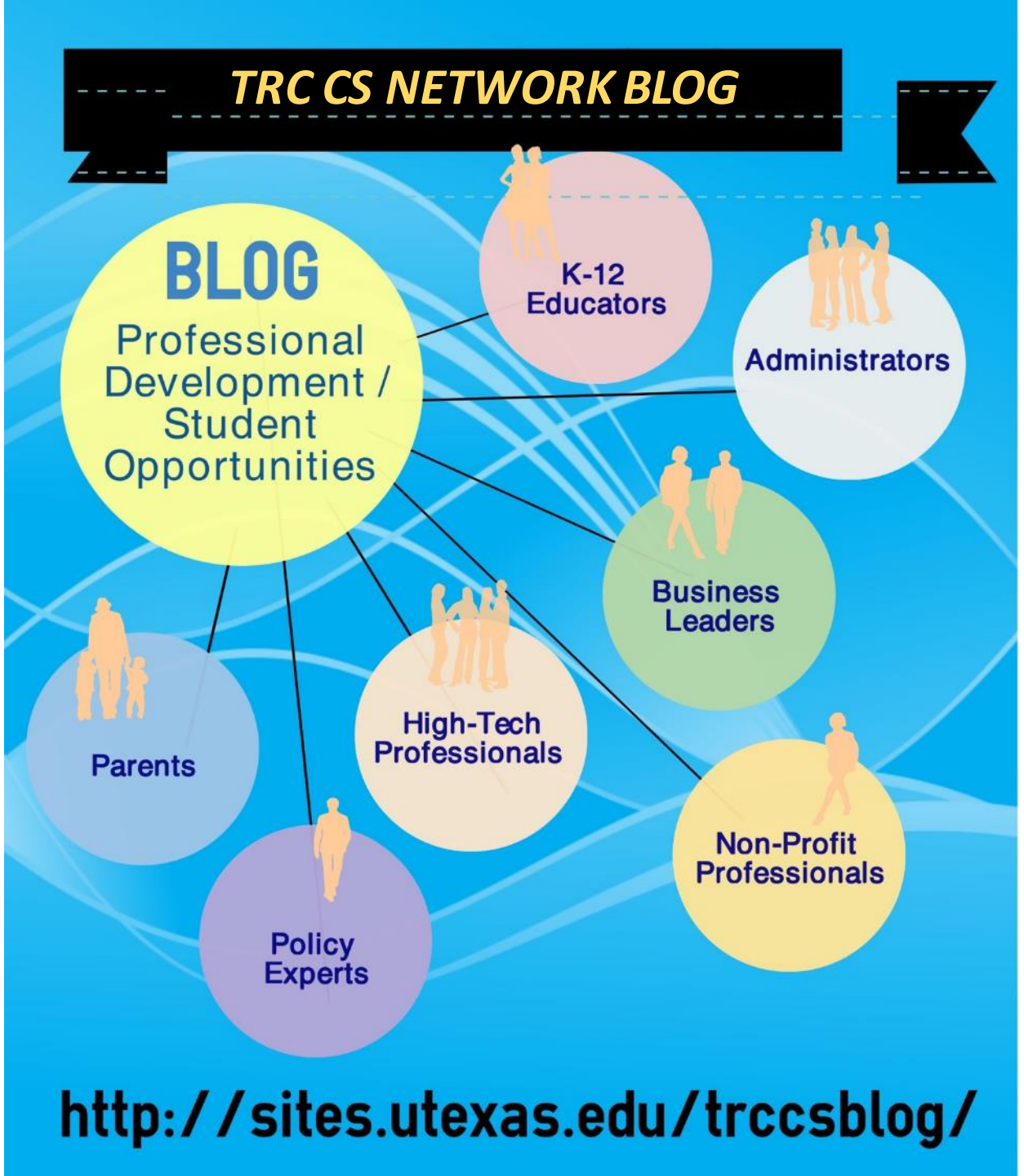
ORACLE ACADEMY

- **Java Fundamentals**
  March 21 – May 11, 2016
- **Java Programming**
  May 16 – May 25, 2016

Online Training

TRC CS Network Blog

Texas Regional Collaboratives



Teach CS 8-12 Certificate Incentive Program

This program provides an opportunity for Texas educators to apply for a one-time stipend through The University of Texas at Austin, Center for STEM Education.

Computer Science

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$1,000

Details on TRC Website

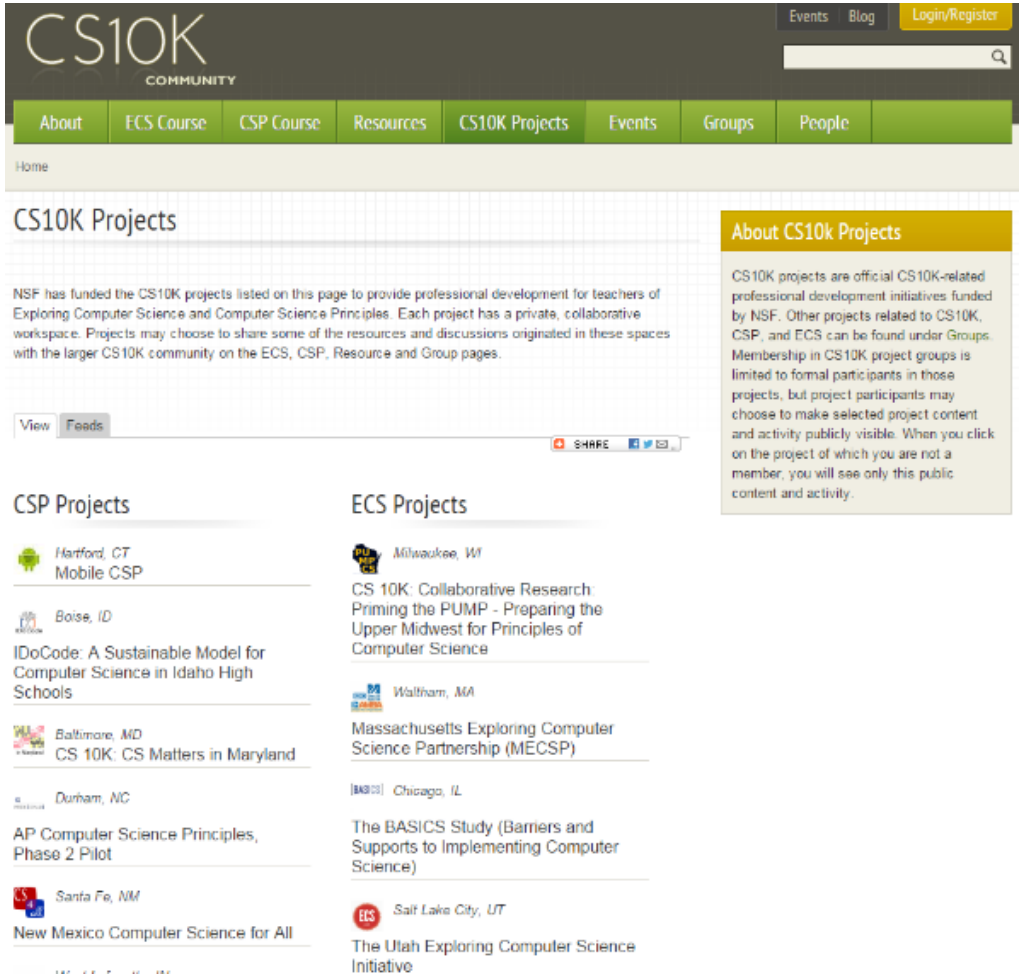
Teach CS Online Course in EdX

COMING SOON
TO A COMPUTER NEAR YOU

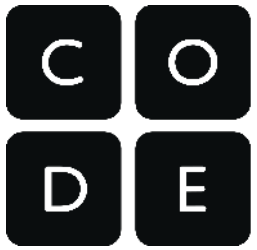
June 2016

Additional Resources

cs10kcommunity.org/projects



code.org/learn


C O
D E


SCRATCH jr


SCRATCH


TYNKER


CODE COMBAT


CS
UNPLUGGED
Computer Science without a computer


BOOTSTRAP
www.bootstrapworld.org


PROJECT
GUTS
Growing Up Thinking Scientifically


KHAN
ACADEMY


CodeHS


bjc


ECS
Exploring
Computer
Science


PROJECT LEAD THE WAY
PLTW


App Inventor


codecademy


Mobile
CSP


THRIVING
IN OUR
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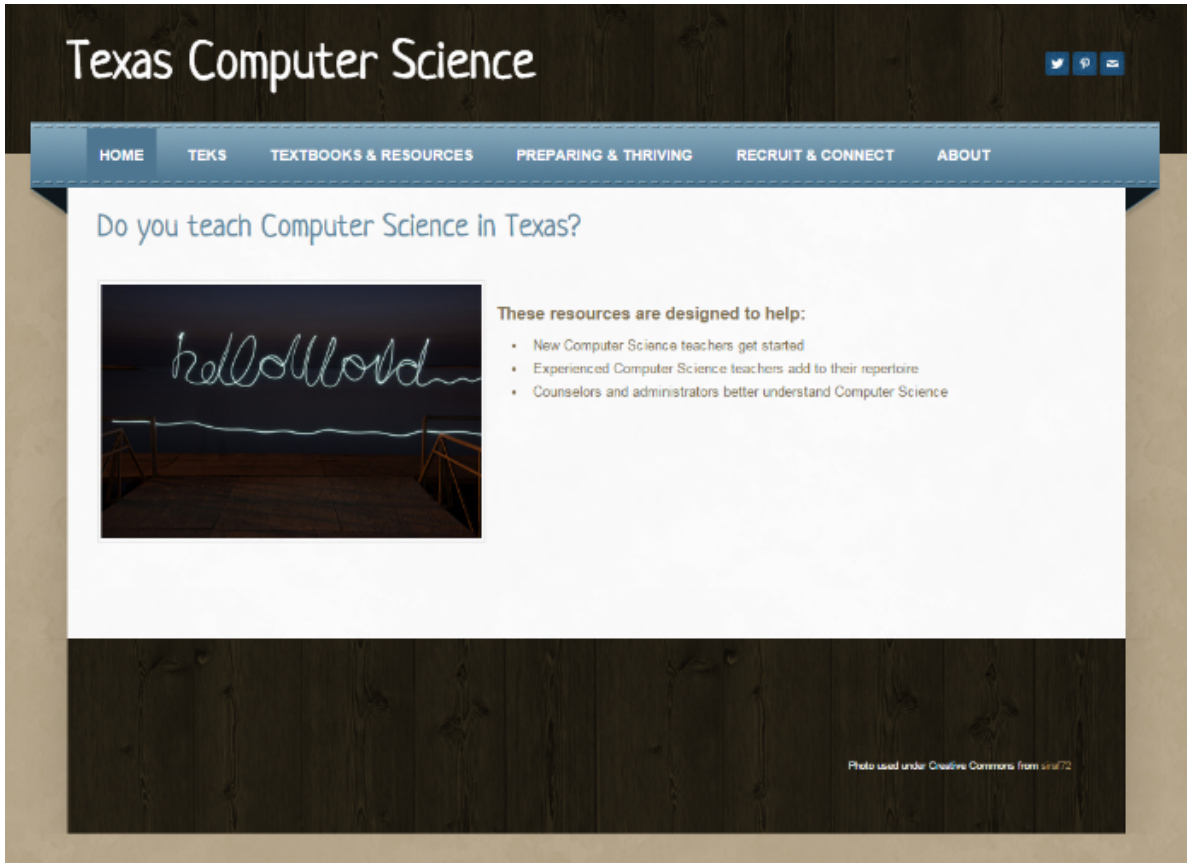
Globaloria


Texas
Alliance for
Computer
Science
Education

texascomputerscience.weebly.com



thetrc.org/computer-science-resources

Recruitment and Clubs

- ncwit.org
- yeswecode.org
- starsalliance.org
- madewithcode.com
- cs-first.com
- blackgirlscode.com
- girlswhocode.com
- girlstart.org
- coderdojo.com
- ngcproject.org
- codenow.org
- techgirlz.org
- girlsintech.org
- tech-girls.org
- code2040.org
- projectcsgirls.com
- girldevelopit.com

TEALS

www.tealsk12.org

- TEALS (Technology Education And Literacy in Schools) is a grassroots program that recruits, trains, mentors, and places high tech professionals from across the country who are passionate about computer science education into high school classes as volunteer teachers
- TEALS volunteers team-teach with ISD teachers
- Two courses: Introductory and AP
- Embedded PD that builds teacher capacity
- Now recruiting schools that want industry volunteers

Texas Alliance for Computer Science Education

Professional Organizations
Learn from Colleagues

http://www.tcea.org/membership/sigs/tacs-sig/

csta.acm.org

connect.iste.org

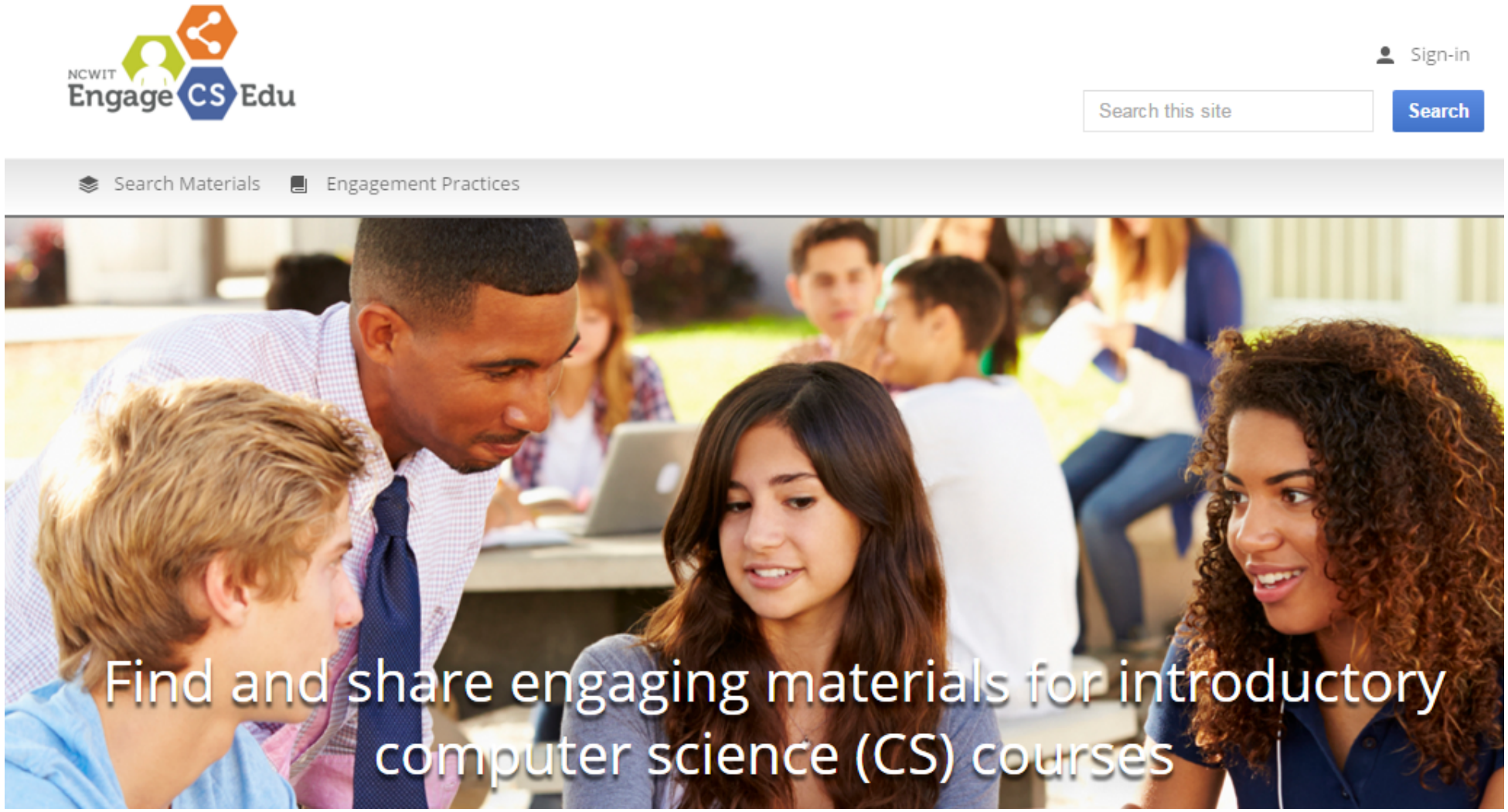
Computing Teachers Network

sigcse.org

Teaching & Learning Resources

Assignments, Activities, Videos

www.engage-csedu.org



nifty.stanford.edu

Nifty Assignments

The Nifty Assignments session at the annual SIGCSE meeting is all about gathering and distributing great assignment ideas and their materials. For each assignment, the web pages linked below describe the assignment and provides materials -- handouts, starter code, and so on.

See the info page for ideas about what makes a nifty assignment and how to apply for the Nifty session. Applications for Nifty-2016 are due **Mon Aug 24**, a few days before the regular SIGCSE deadline as usual. Please email any suggestions or comments to Nick Parlante @ cs.stanford.edu with "nifty" in the subject. Nick's Home

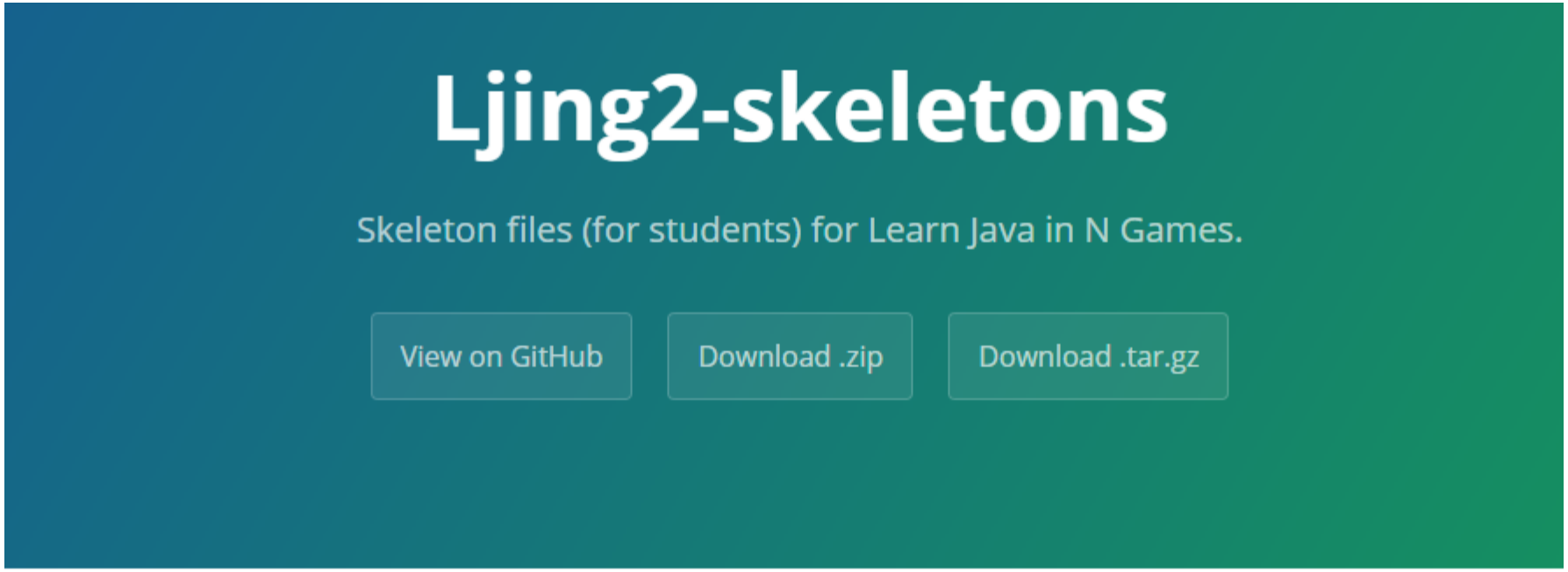
Nifty Assignments 2015

Counting Squares -- Mark Sherriff, Luther Tychonievich, and Ryan Layer	CS0-CS1 Neat and easy squares activity
Speed Reader -- Peter-Michael Osera	CS1 Nifty Animation
GeoLocator -- Stuart Reges	CS1 Fun Geo Data
Packet Sniffing -- Suzanne Matthews and David Raymond	CS1 Eye Opening Networking
Melody Maker -- Allison Obourn and Marty Stepp	CS1 Fun with Sound
Seam Carving -- Josh Hug	CS1-CS2 Amazing Image Resize Trick

Nifty Assignments 2014

Analyzing Google Books Dataset -- Josh Hug	CS1 Amazing Language Data in CS1
Game Of Sticks -- Antti Laaksonen and Arto Vihavainen	CS1 Neat Game "AI" from shockingly simple trick
Purple America -- Kevin Wayne	CS1 Big Map Data
Ants vs. SomeBees -- John DeNero, Tom Magrino, and Eric Tzeng	CS1 Riff Plants vs. Zombies
Segregation Simulation -- Frank McCown	CS1 Neat Real-World 2-d Modeling
Image Stacker and The Pesky Tourist -- John Nicholson	CS2 Two very neat 2-d image manipulations

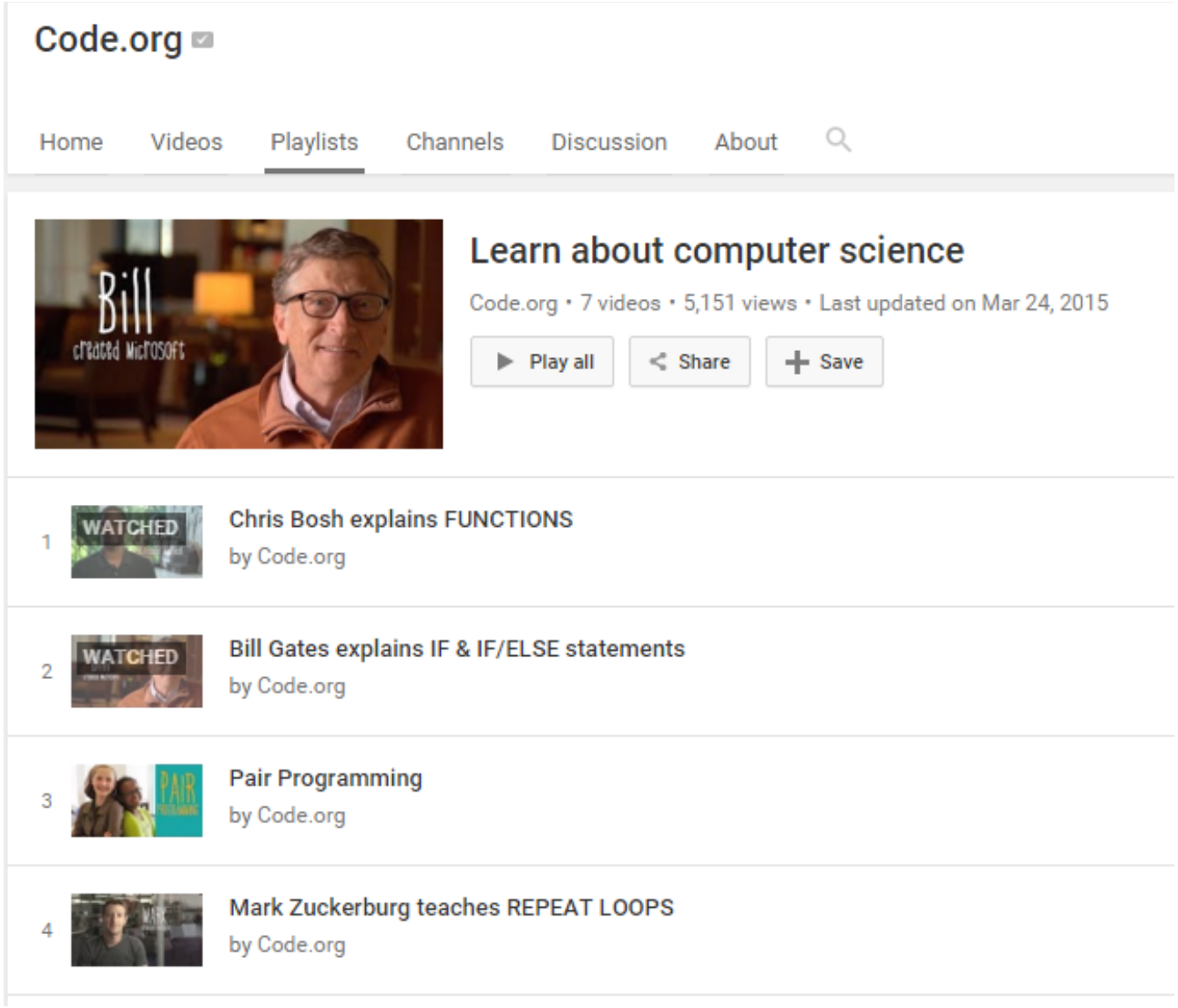
peterdrake.github.io/ljing2-skeletons



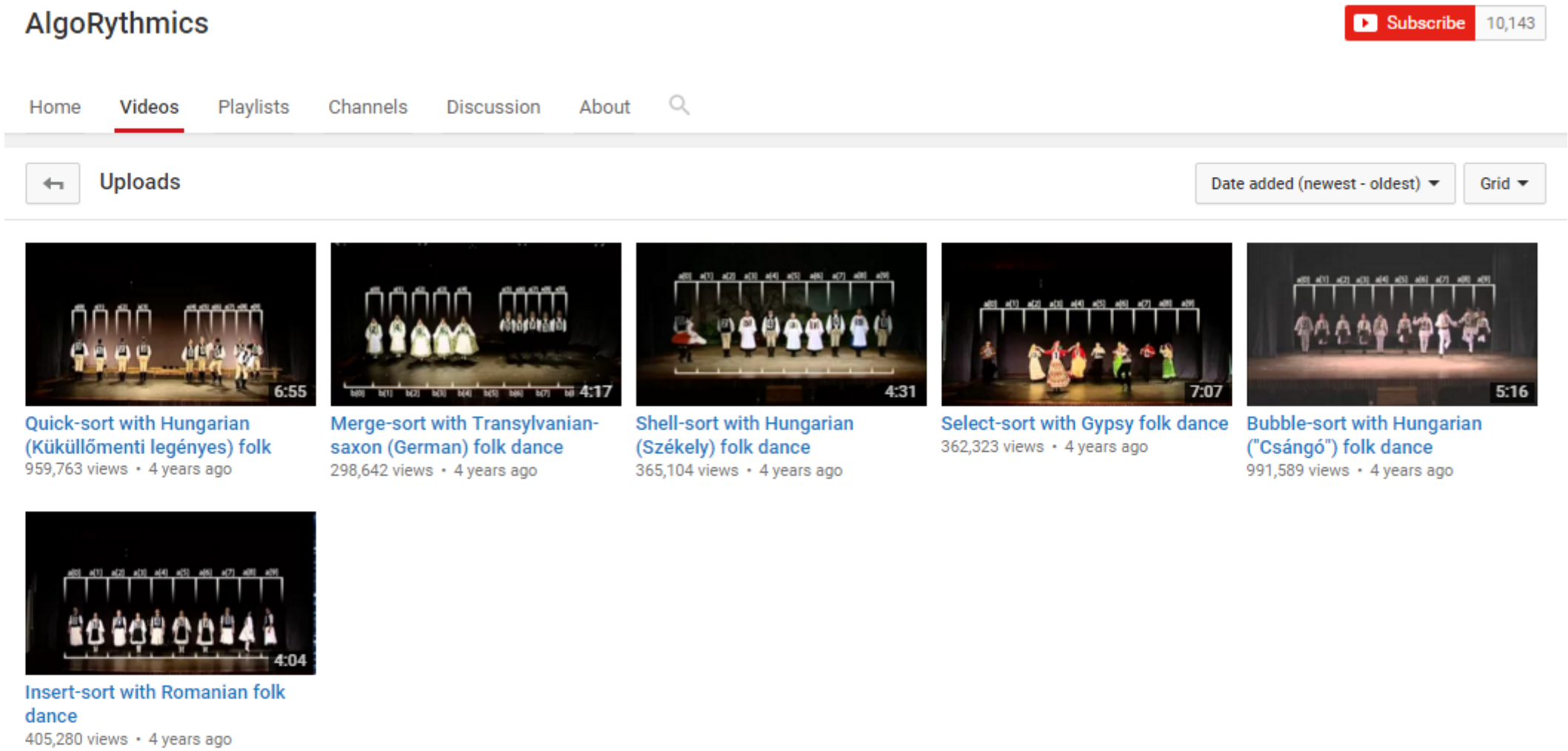
Learn Java in N Games

This repository contains a collection of game-based activities for learning about Java programming.

www.youtube.com/user/CodeOrg/playlists



www.youtube.com/user/AlgoRythmics



blog.penjee.com

Penjee
Learn to code, the fun way

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PENJEE.COM 'S BLOG

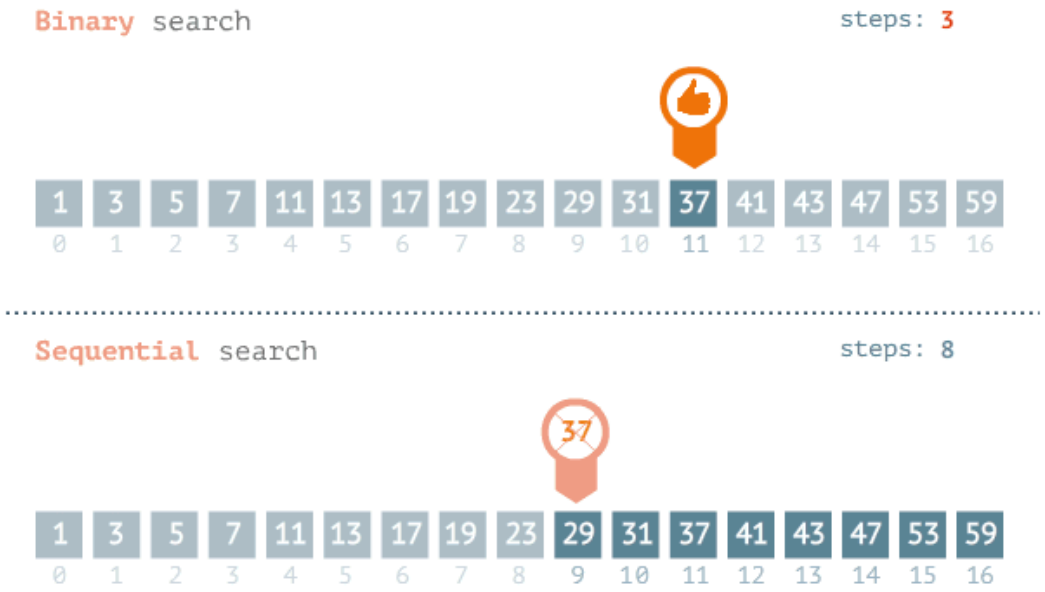
Categories

Computer Science

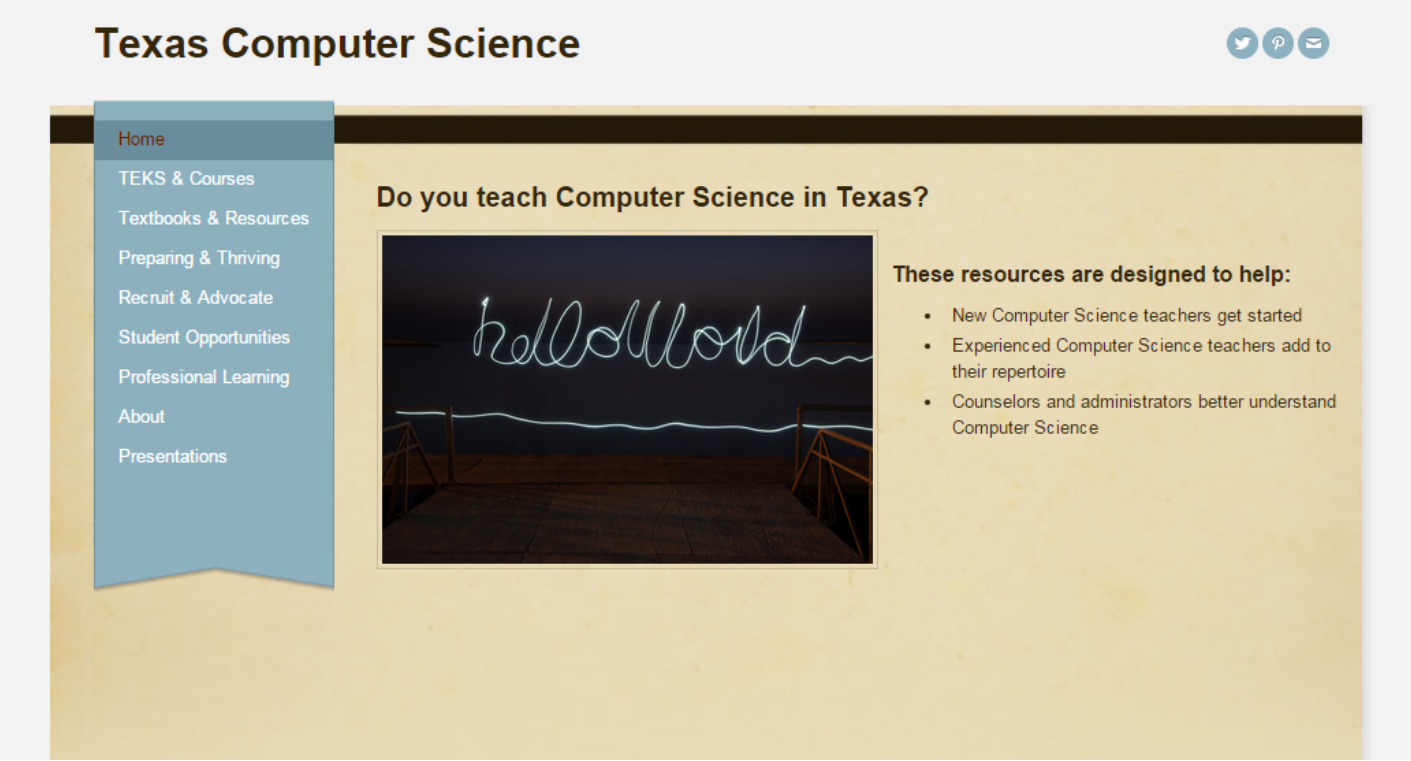
education

Binary Vs Linear Search Through Animated Gifs

Posted in algorithms, Learn Programming, Programming Gifs



texascomputerscience.weebly.com



Textbooks & Resources

- Assignment Ideas
- Topic Resources