



HELLO!

I'm Sarah Withee

Polyglot software engineer

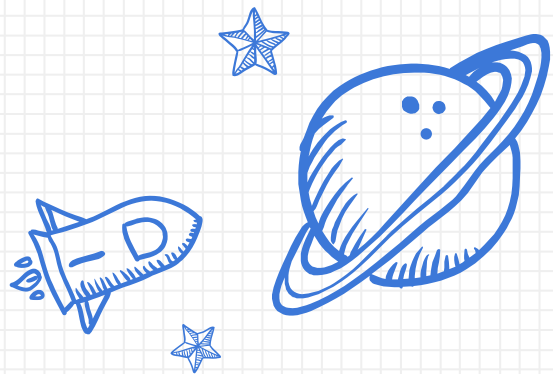
Robotics/hardware tinkerer

International conference speaker

Girls of Steel mentor



Theodosius and Rorschach

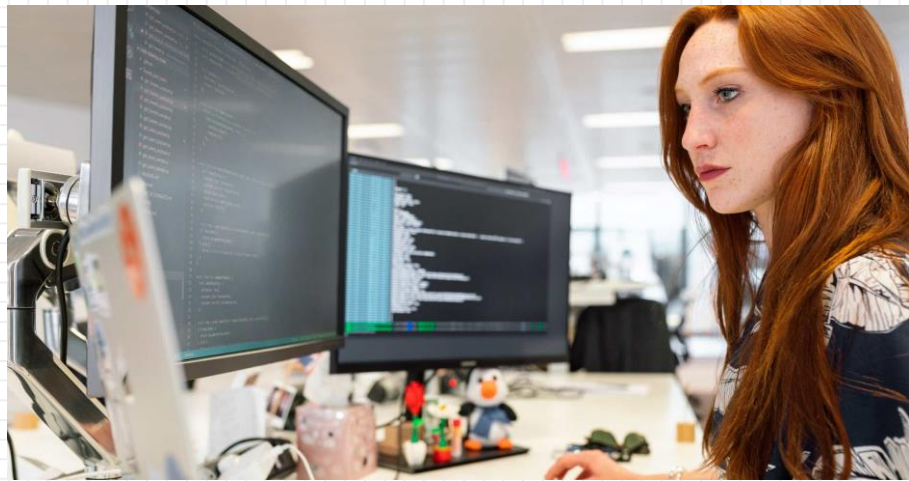


What I Do

Do I just bang on the keyboard all day?



What They Think I Do



What I Really Do



18F (part of the General Services Administration)

Skip navigation



**Information and Technical Assistance
on the Americans with Disabilities Act**

United States Department of Justice
Civil Rights Division

More Search Options

[Law / Regulations](#)
[Design Standards](#)
[Technical Assistance Materials](#)
[Enforcement](#)

New on ADA.gov

Champaign-Urbana Mass Transit District
Settlement Agreement (posted 12/14/21)

 **Statement by Assistant Attorney General Kristen Clarke on World AIDS Day**
(posted 12/1/21)

Hy-Vee, Inc.
Settlement Agreement (posted 12/1/21)

Uber Technologies, Inc.
Complaint (posted 11/10/21)

Port Authority Trans-Hudson Corp. (PATH)
Consent Decree (posted 11/9/21)

Rite Aid Corporation
Settlement Agreement (posted 11/1/21)

Vermont Department of Corrections
Settlement Agreement (posted 10/28/21)

Diva Nails
Settlement Agreement (posted 10/26/21)

ADA Information Line

The U.S. Department of Justice provides information about the ADA through a toll-free ADA Information Line.
800-514-0301 (voice)
800-514-0383 (TTY)

Introduction to the ADA

 **COVID-19 and the ADA**

File an ADA Complaint

Featured Topic: Long COVID



Guidance on When "Long COVID" May Be a Disability Under the ADA, Section 504, and Section 1557

 **ADA.gov Updates**

Sign up for e-mail updates from ADA.gov



ADA Information Line
Talk to us at 800-514-0301 | 800-514-0383 (TTY)

[Home](#)
[Topics](#)
[Law & Regulations](#)
[File a Complaint](#)
[Cases](#)
[Give Us Feedback](#)

COVID-19 and the Americans with Disabilities Act [LEARN MORE >](#)

The Americans with Disabilities Act (ADA) protects people with disabilities from discrimination.

Disability rights are civil rights. From voting to parking, the ADA is a law that protects people with disabilities in many areas of public life.



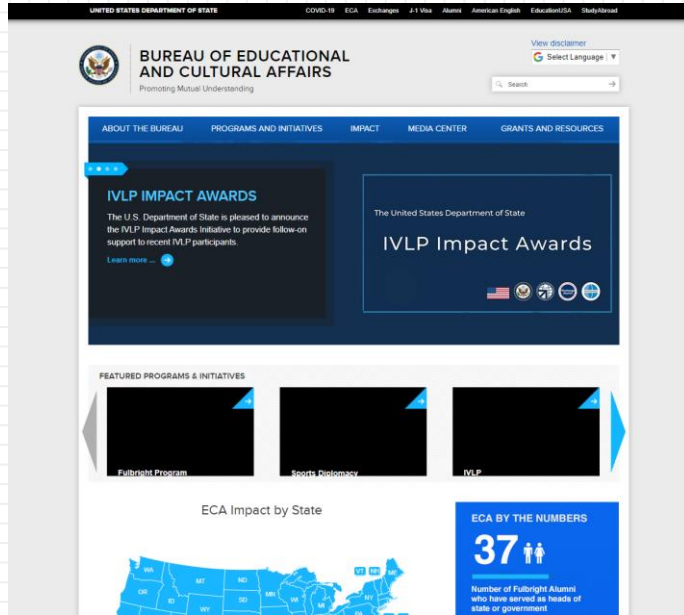
Help us improve ADA.gov

We're working to make ADA.gov more user friendly. We've launched this beta site to

How can we improve this site?

Before / After

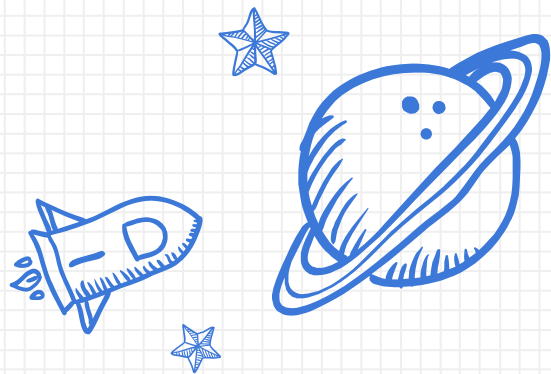
My Current Project



- ✗ They have 10 sites
- ✗ 700+ social media accounts
- ✗ Old look
- ✗ Not mobile-friendly
- ✗ Bad search tool
- ✗ Not focused on what users are looking for
- ✗ ... and more



How did you get here?



Elementary School

Where the baby geek Sarah started



Commodore 64 (Released 1982)



Demo goes here



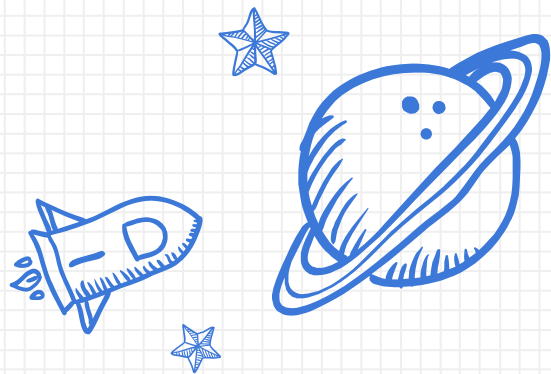
That Program

```
10 T$="Hello everyone!"
20 TL=LEN(T$)
30 FOR I=0 TO 40-TL
40 PRINT SPC(I) T$
50 NEXT I
60 FOR I=40-TL TO 0 STEP -1
70 PRINT SPC(I) T$
80 NEXT I
90 GOTO 30
RUN
```





Games Magazine



High School

Computers grew up, and so did Sarah



Evolution of Home Computers, 1980s - Today

File Edit View Search Run Debug Options

Help

QBASIC-5.BAS:ABC

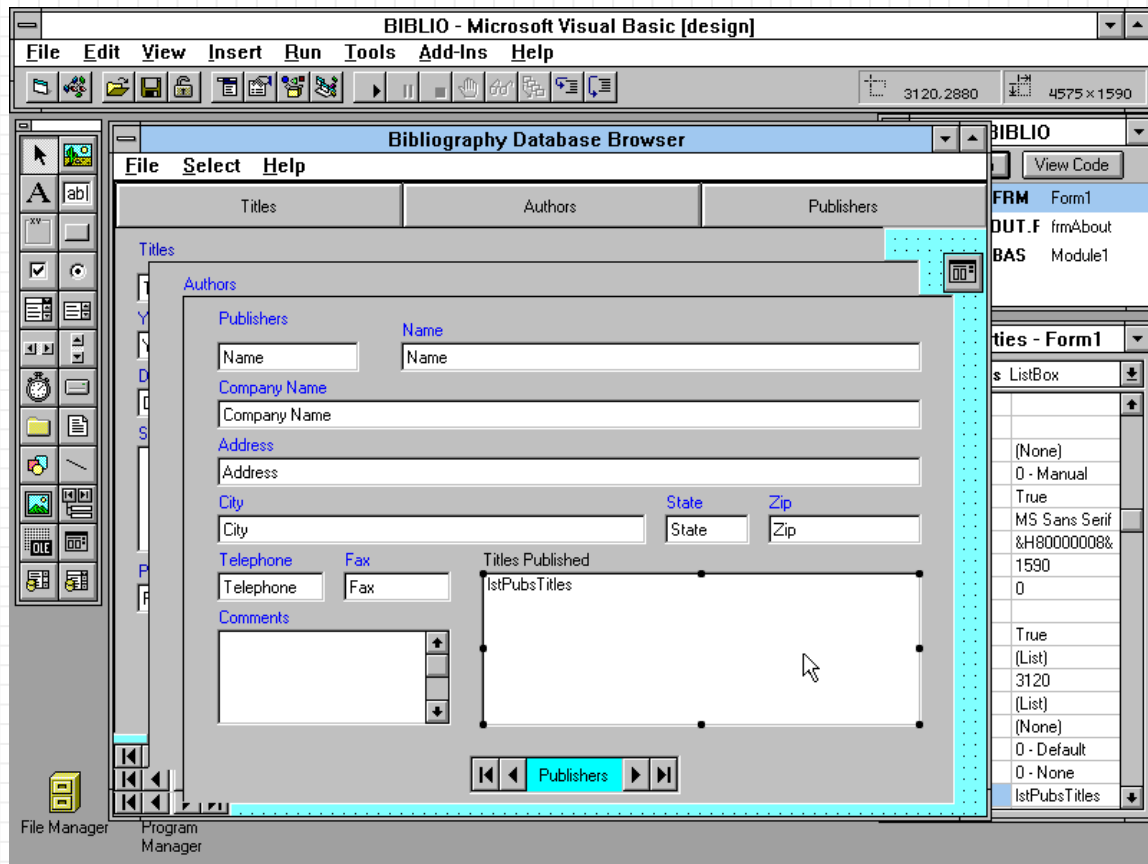
```
SUB ABC
INPUT "enter a number"; n
s = n
WHILE n <> 0
a = n MOD 10
r = r + a ^ 3
n = FIX(n / 10)
WEND
IF s = r THEN
PRINT "the given number is armstrong"
ELSE
PRINT "it is not armstrong"
END IF
END SUB
```

Immediate

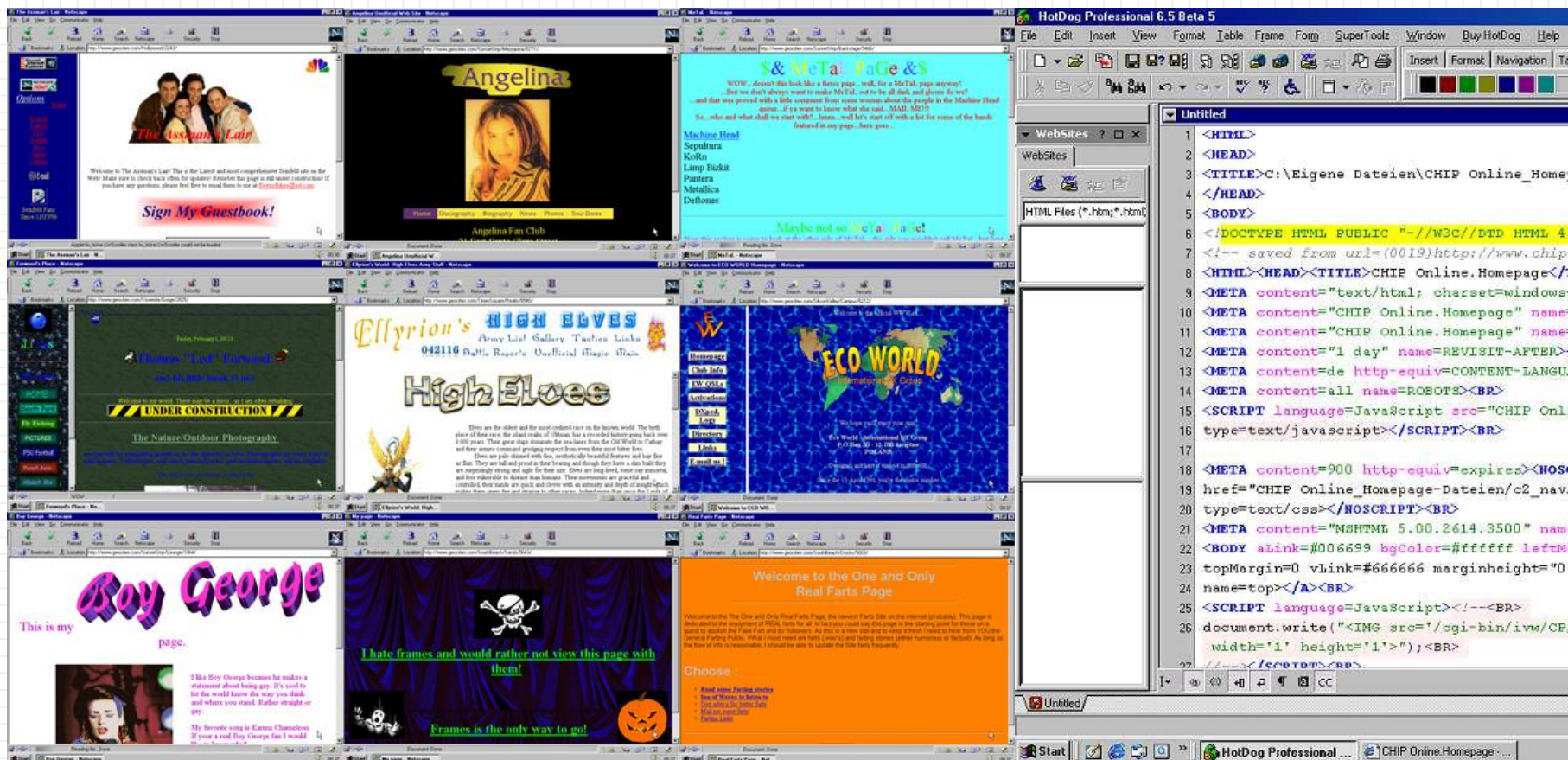
<Shift+F1=Help> <F6=Window> <F2=Subs> <F5=Run> <F8=Step>

N 00001:001

QBASIC



Visual Basic

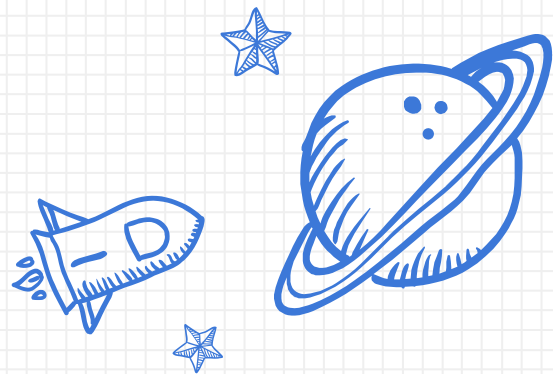


Geocities: Personal home pages from the 1990s

Misc High School Activities

- X Tech Theater (Lights, Sound, Set Design, etc.)
- X Morning Announcements/Video Production Team
- X Worked on School Web Page





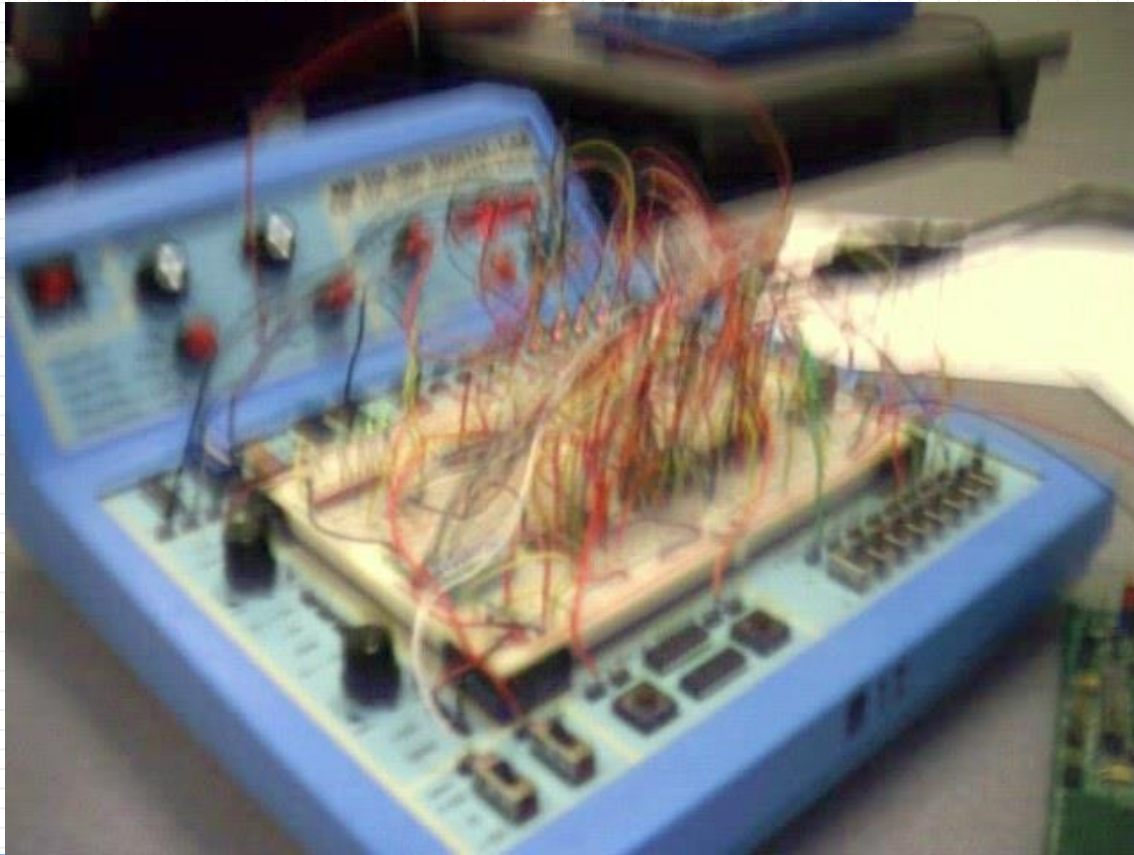
College

Well, the first time anyway...

X Went for Computer Science

X ... didn't do much there...

X ... eventually dropped out...

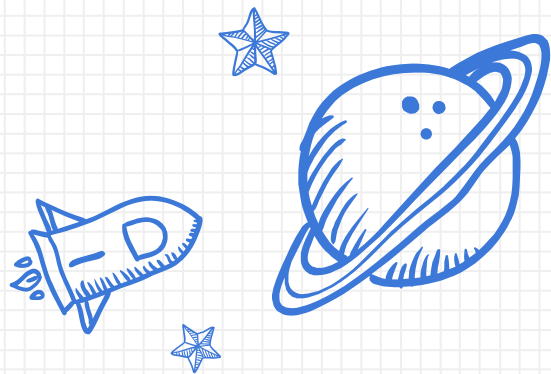


4-Bit Calculator, from scratch (logic gates) (2003)

Post-College

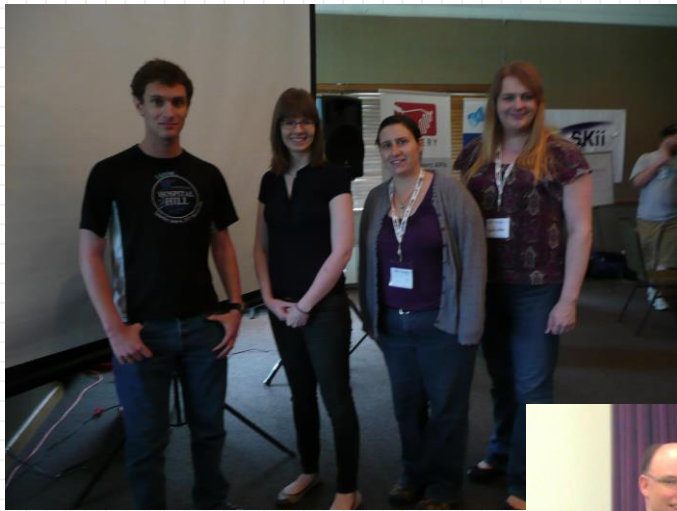
- X 2008 Financial Crash
- X Eventually found job, got back on track
- X Started my own company repairing computers and making websites
- X Got myself back together for college



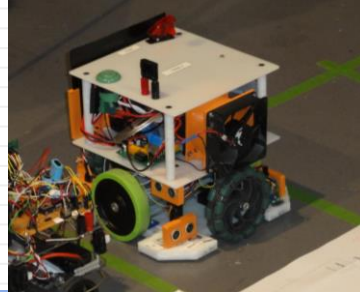


College... again!

Here's where I *thrived*!



Hackathons and ACM Programming Competition Teams



University of Missouri-Kansas City's IEEE Robotics Competition Team



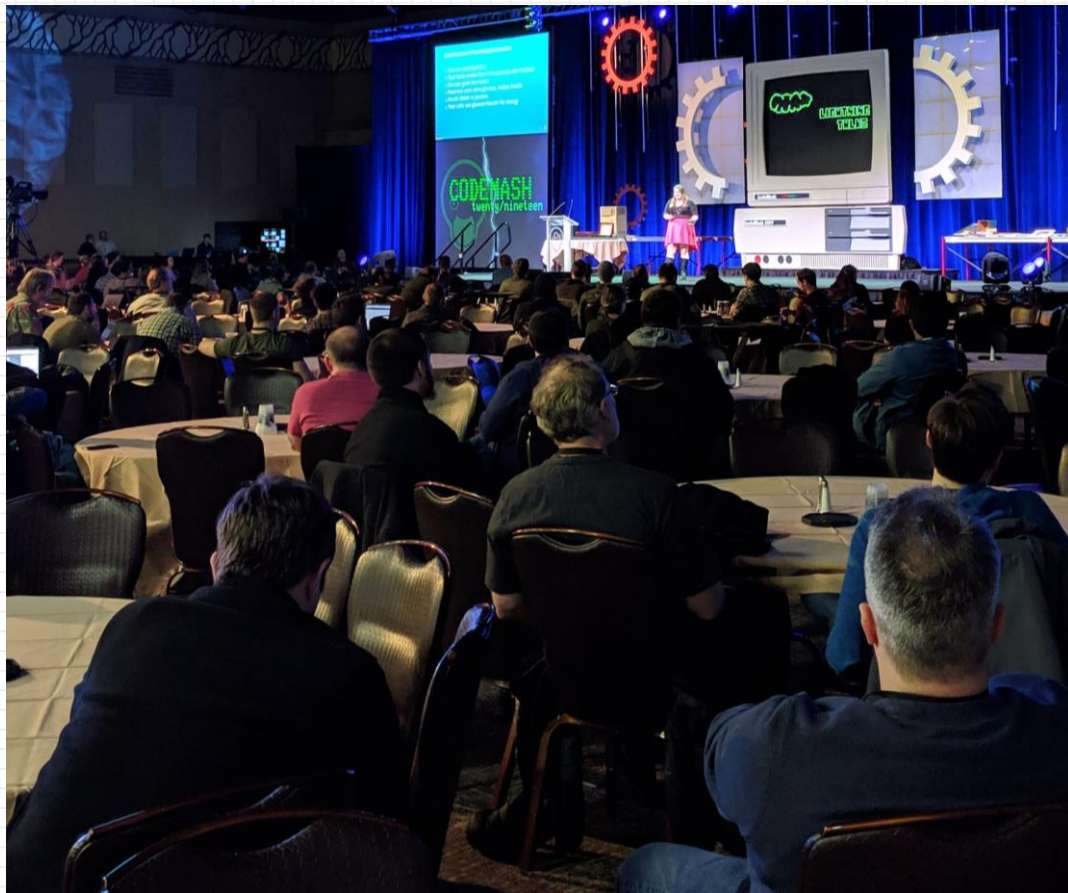
FIRST Lego League and FIRST Tech Challenge mentoring (2011-2016)



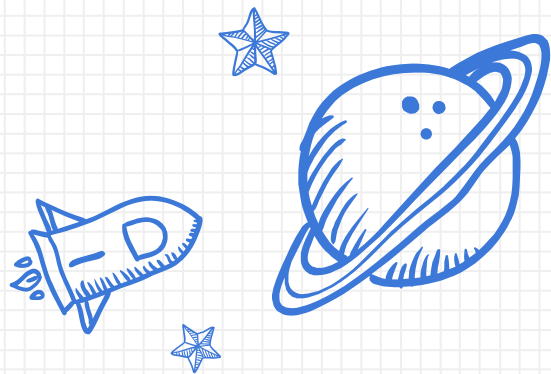
Missouri, Iowa, Nebraska, Kansas Women in Computing Conference (2011)



Missouri, Iowa, Nebraska, Kansas Women in Computing Organizers (2011-2017)



Conference Speaking at Code Mash 2019



Today

What am I doing nowadays?

Jobs

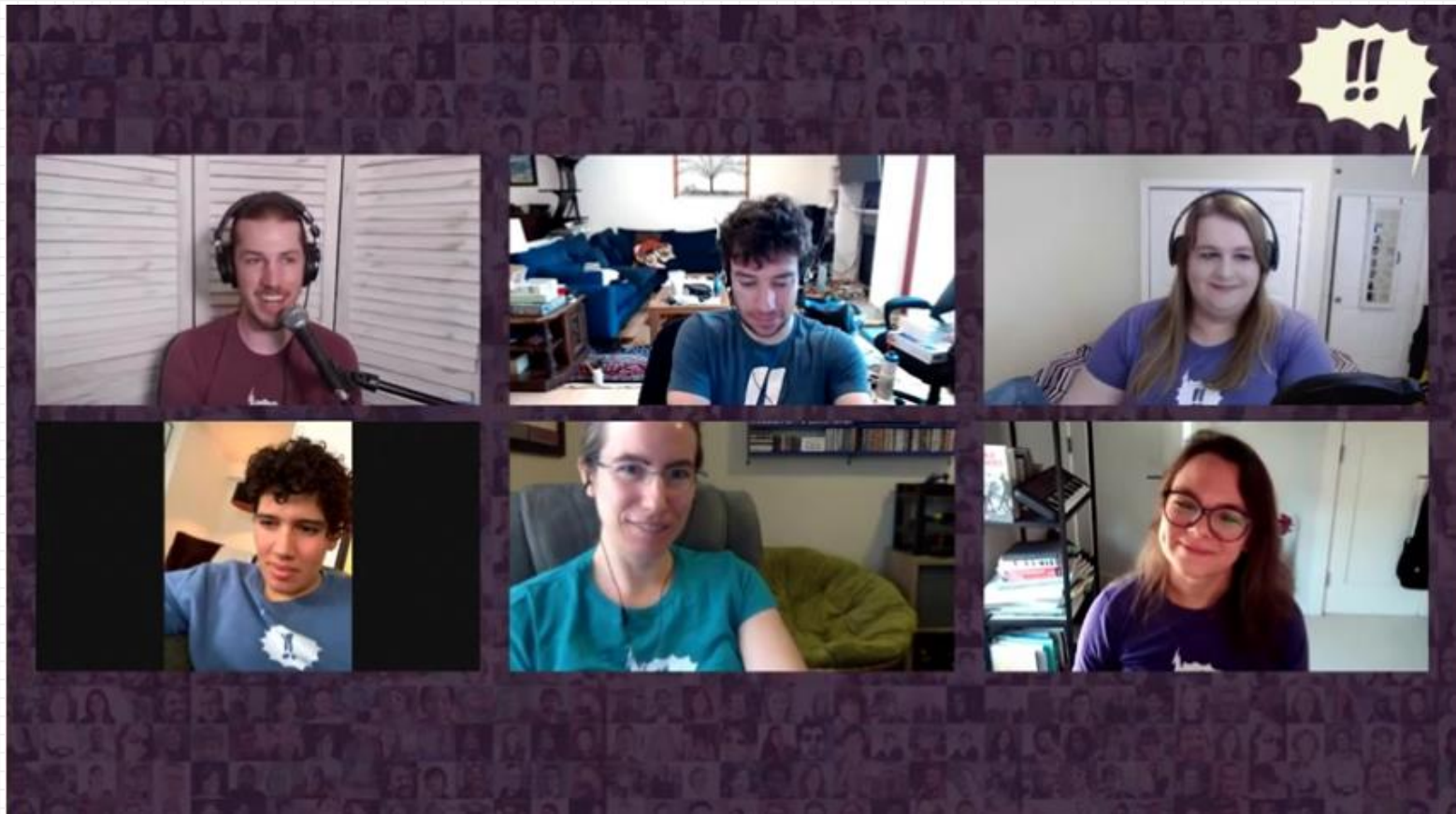
- X E-commerce (online shopping) company
- X Technical consulting
- X Regional bank
- X Medical research institute
- X Healthcare data analytics company
- X Agriculture data analytics
- X Software consulting

- X Federal government

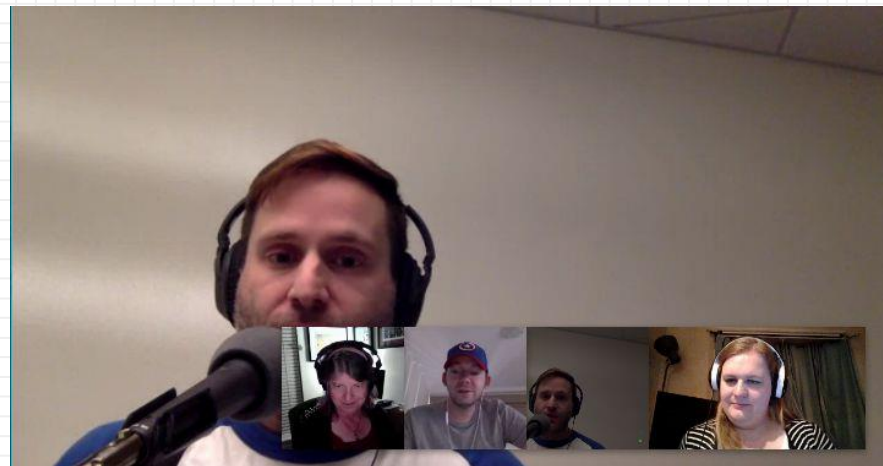
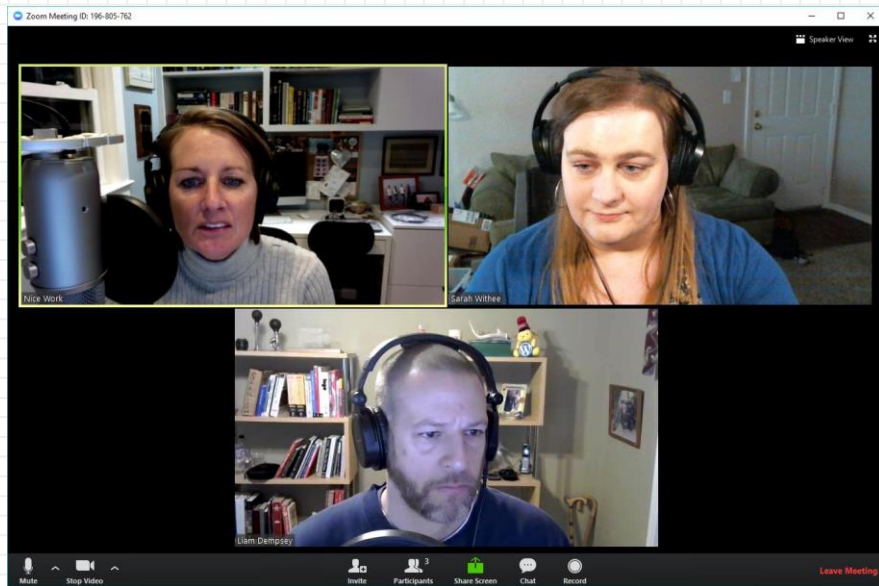




Mentoring for Girls of Steel



Conference Organizing (this is Virtual !!Con 2021)



Being a guest on podcasts and panel discussions

-  - Cities lived in
-  - Cities traveled to
-  - Airports been in
-  - Countries visited



International Conference Speaking


```
(from -r requirements.txt (line 14)) (1.15.0)
Requirement already satisfied: sqlparse==0.3.1 in ./venv/lib/python3.8/site-pack
ages (from -r requirements.txt (line 15)) (0.3.1)
Requirement already satisfied: toml==0.10.1 in ./venv/lib/python3.8/site-packa
s (from -r requirements.txt (line 16)) (0.10.1)
Requirement already satisfied: whitenoise==5.2.0 in ./venv/lib/python3.8/site-pa
ckages (from -r requirements.txt (line 17)) (5.2.0)
Requirement already satisfied: wrapt==1.12.1 in ./venv/lib/python3.8/site-packag
es (from -r requirements.txt (line 18)) (1.12.1)
Collecting psycopg2
  Using cached psycopg2-2.8.6.tar.gz (383 kB)
Requirement already satisfied: setuptools>=3.0 in ./venv/lib/python3.8/site-pack
ages (from unicorn==20.0.4->-r requirements.txt (line 7)) (54.1.2)
Building wheels for collected packages: psycopg2-binary, psycopg2
  Building wheel for psycopg2-binary (setup.py) ... error
    Running setup.py clean for psycopg2-binary
    Building wheel for psycopg2 (setup.py) ... error
    Running setup.py clean for psycopg2
Failed to build psycopg2-binary psycopg2
Installing collected packages: psycopg2, mccabe, isort, Django, dj-database-url,
astroid, pylint, psycopg2-binary, unicorn, django-heroku, colorama
  Running setup.py install for psycopg2 ... error
(venv)
layla@Tachi:~/Documents/Repos/codethesaur.us (*)
> main [e8c5344] modified untracked
  copying lib/pool.py -> build/lib.macosx-10.14.6-arm64-3.8/psycopg2
  running build_ext
  building 'psycopg2._psycopg' extension
  creating build/temp.macosx-10.14.6-arm64-3.8
```

01:02:15 any added files can be added to Git // View Files // Always Add // Don't Ask Again (4 minutes ago)

Mac Files 15:58 LF UTF-8 4 spaces main 03:07:49

Live Coding on Twitch

The Polyglot Developer Reference

Use this tool to compare language components from languages you know and don't know, or just use it as a language reference cheat sheet.

Learn a Language

Compare concepts side-by-side with a language you know and one you don't.

Choose a language concept:

Functions, Methods, and Subroutines

Pick a language you know:

C# (version 9)

Pick a language you **don't** know:

Rust (version 1)

Go →

See a Reference Sheet

A quick and easy way to remind yourself how to do something. Still under construction.

Choose a language concept:

Classes

Pick a language:

Ada (version 2012)

Go →

Made with ❤️ by Sarah Withee and 38 contributors.

Comparing C#'s and Rust's Functions, Methods, and Subroutines

The following will eventually be a table of stuff that's populated with things from the languages

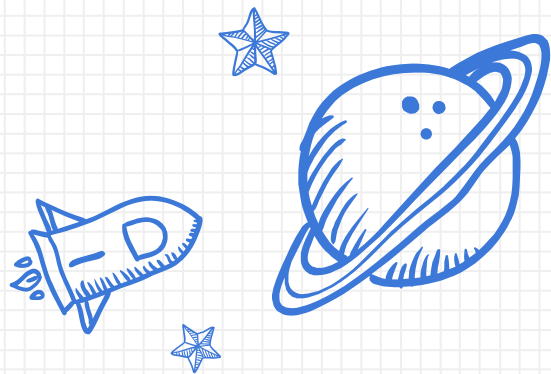
Void Functions

Concept	C#'s Implementation	Rust's Implementation
Function that does not return a value and takes no parameters	<pre>void FunctionName() { //code }</pre>	<pre>fn function() { statements; }</pre>
Function that does not return a value and that takes 1 or more defined parameters	<pre>void FunctionName(parameterType1 parameter { //code }</pre>	<pre>fn function(parameter: type, parameter2: statements; }</pre>
Function that does not return a value and function that takes an unknown number of parameters	<pre>void FunctionName(params parameterType[]) { //code }</pre>	<pre>fn function(params parameterType[]) { //code }</pre>

Return Value Functions

Concept	C#'s Implementation	Rust's Implementation
Function that returns a value and takes no parameters	<pre>returnValueType FunctionName() { //code return returnValue; }</pre>	<pre>fn function() -> return_type { statements; expression }</pre>
Function that returns a value and takes 1 or	<pre>returnValueType FunctionName(parameterType</pre>	<pre>fn function(parameter: type, parameter2:</pre>

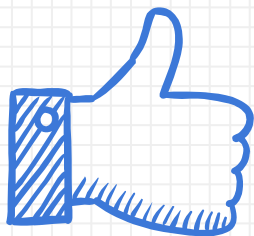
Code Thesaurus, an open source developer reference tool I created



Final Thoughts

Some advice for you

- ✗ Explore and try new things
- ✗ You don't have to always be good at them
- ✗ Fill your life with fun, smart, and encouraging friends



THANKS!

I'd love to hear from you!

You can find me at

- ✕ Web: <https://geekygirlsarah.com>
- ✕ Email: hello@geekygirlsarah.com
- ✕ Discord: [geekygirlsarah#0001](#)
- ✕ Social media: [@geekygirlsarah](#)