

Empowering Women in Data

SHAPING AN INCLUSIVE AI FUTURE

Autumn Nash

Software Engineer

Education Board Chair @ MilSpouse Coders Mentor

Mentor & Teacher

ABOUT ME- WHERE IT STARTED



Military Spouse

- I was a Military spouse for 14 years
- Went back to school to get my degree in software development



MilSpouse Coders

- I was looking for homework help, ended up making life-long friends
- Moved across the country the summer before graduating, which hindered internship
- Raised funds to create scholarships



Solving Problems

- Partnered with Microsoft for our second Hackathon
- An apprenticeship changed my life
- NoSQL Database Specialist Solutions Architect



Innovating Military Spouse job pipeline

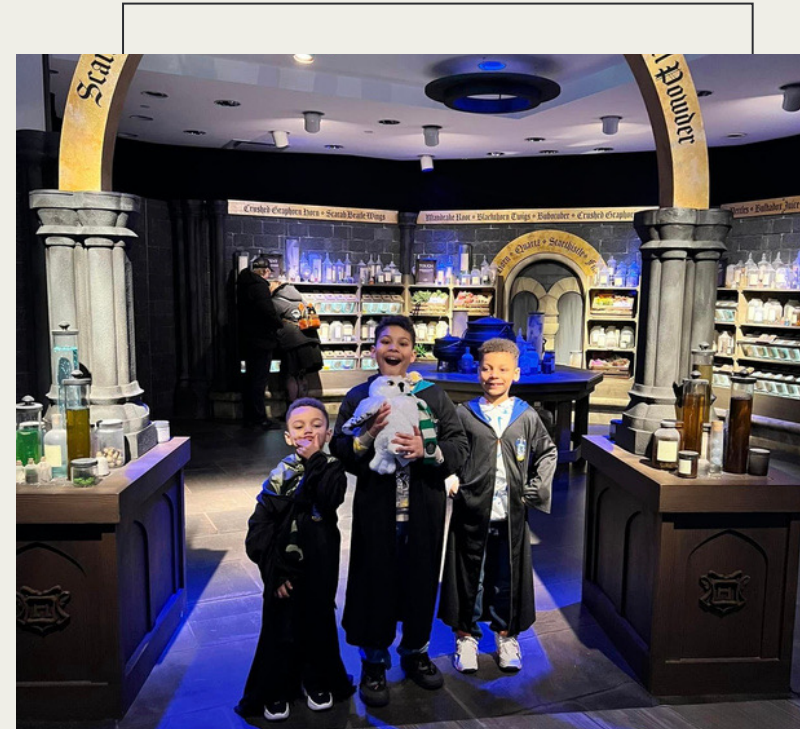
- Built relationships and partnerships to facilitate military spouses employment
- Partnered with other non-profits and bootcamps to provide bootcamp scholarship, resources, and classes

MEET THE TEAM



Military Spouse Employment Program

We were honored for all the work we've done for military spouse employment, resources, and jobs. We were inducted into the Military Spouse Employment Program (MSEP), which is funded and run by the Department of Defense



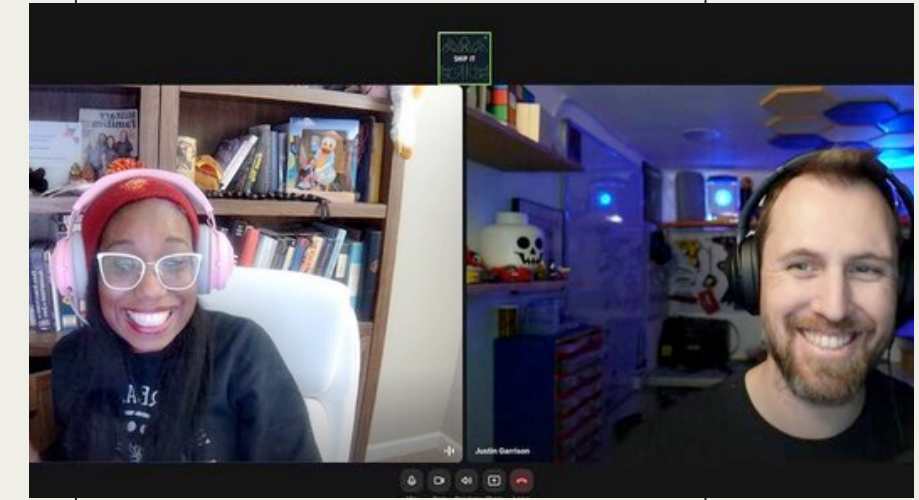
Mom of 3 little boys

My favorite project is these little guys



Mentor ReWriting the Code

I was a member in college and enjoy giving back by being a mentor, speaker, hackathon judge & coach, and teaching workshops.



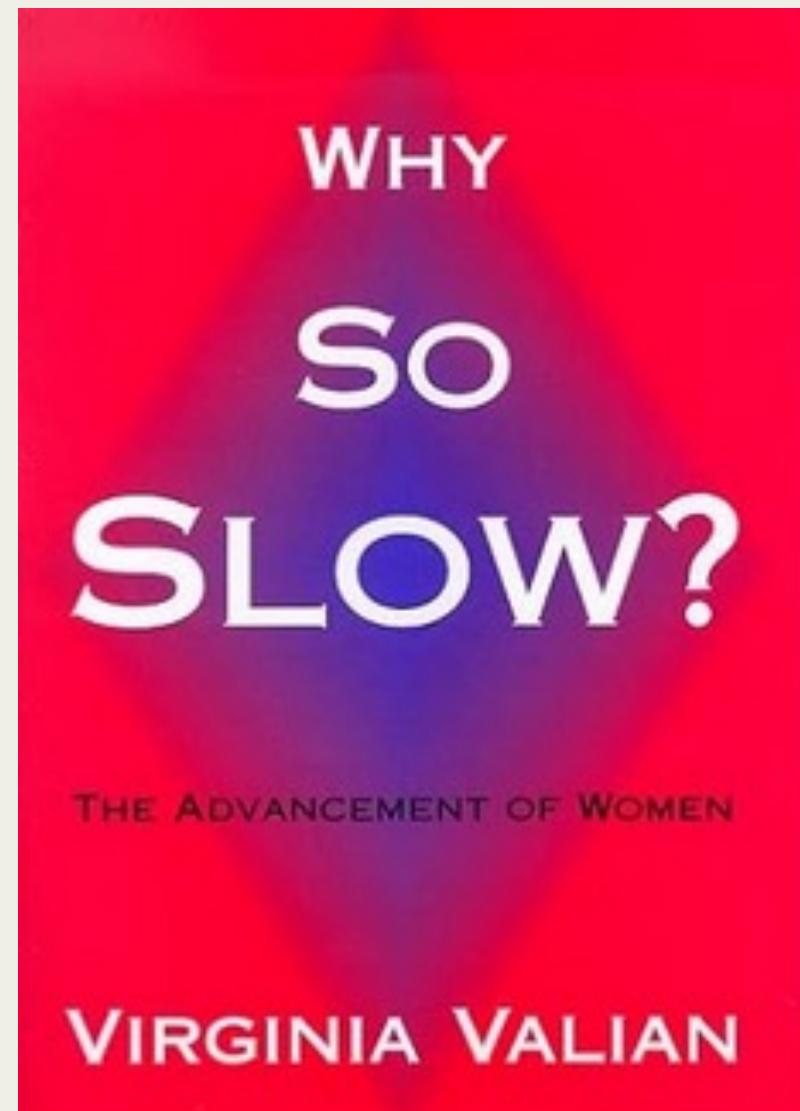
Co-Host Ship-it

We talk about infrastructure and everything after Git Push

AGENDA

- Is there a gender problem in tech?
- Why is it important for data to be correct?
- The relationship between data and AI
- How could this go wrong- why should we care?
- How can you help?

WHEN DO YOU THINK THIS BOOK WAS PUBLISHED?



“A more diverse workforce is better tooled to identify and remove AI biases as they interpret data, test solutions, and make decisions.”

Sindhu Gangadharan

WOMEN MAKE UP 25%

- 1/4 of Technical roles
- 50% leave by 35 (1/8 technical roles)
- 56% by mid-career
- 45% of recent layoffs were women
- Black, Latina, and Indigenous women represent just 4% of all technology workers, in the UK its 0.77%



COMPETITIVE ANALYSIS

- Companies led by women are more capital-efficient, achieving 35% higher ROI
- Women-led startups have 12% higher revenue than startups run by men, according to the Kauffman Foundation

WHY WOMEN

85%

85%

Women control or influence 85% of consumer spending - Tech Crunch

11 Trillion

11 Trillion

U.S. women control approximately \$11 trillion in assets, a number that is expected to grow to \$30 trillion by 2030-Forbes

84 Trillion

84 Trillion

Researchers believe that the greatest wealth transfer in U.S. history is here. Recent estimates suggest that some \$84 trillion will be passed down from older Americans to Millennial and Gen X heirs through 2045 — and that \$16 trillion will be transferred within the next decade - NY Times

LAYOFFS

More than 153,000 in tech have been laid off, but there was a disproportionate impact on women, people of color, and people in the United States on H1-B visas

DEI teams, Apprenticeships, and Returnships were some of the first cuts made.



70% of software that supports
infrastructure is opensource yet
makes up only 9.8% contributed by
women

AI models need to be trained on data and are designed to pull data continually and indefinitely

This increases the importance of data, and the stakes of data bias are growing ever higher

Leaders | Regulating the internet giants

The world's most valuable resource is no longer oil, but data

The data economy demands a new approach to antitrust rules



May 6th 2017

Share

How could this go wrong?

HIRING AND RECRUITMENT

A make up artist in the UK tasked with reapplying for her position during the 2020 furlough period, she faced an unusual judge: AI, analyzing her every move through the lens of a video interview

AI critique of her body language.



FACIAL RECOGNITION

Companies are rushing to integrate AI facial recognition software currently used by private companies, law enforcement, and border control.

A [landmark U.S. government study](#) reported that more than 200 facial recognition algorithms — comprising a majority in the industry — had a harder time distinguishing non-white faces

[Facial recognition software](#) mislabeled 28 members of Congress as criminals, disproportionately affecting African American and Latino lawmakers



AI GONE WRONG

We've seen several circumstances of AI becoming racist.

- Photo application classified African Americans as gorillas
- AI chatbot adopted racist and anti-Semitic verbiage in response to conversations on Twitter
- A [ProPublica report](#) claimed that an algorithm — built by a private contractor — was more likely to rate black parole candidates as higher risk



“It is imperative that the risks be examined carefully when using LLMs to improve access to health information, as a decision-support tool, or even to enhance diagnostic capacity in under-resourced settings to protect people’s health and reduce inequity,” –World wide health organization

WHAT CAN YOU DO TO HELP

Foster an inclusive work
culture

Career planning

Mentor & Sponsor

Returnships & Apprenticeships

Unbiased interview practices

Offer family-friendly
work policies and
benefits for everyone and
Flexibility

Make contributing to Open
Source inclusive &
accessible

Elevate Women's voices

Acknowledge the whole person and model bringing your whole self to work

Be curious but not nosy

I have a personal appointment

OK, thanks for letting me know.

Life outside of work

I have 3 cats!
Find common ground

Model sharing the whole person

I'll pick up my kids at 3:30 so I'll be unavailable until 4:00

Thank you!

Autumn Nash

Software Engineer

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