

An Unusual Path to Success

February 2022

Agenda

- ❑ Introduction
- ❑ “Technology” Jobs
- ❑ Job Market
- ❑ An Employer’s Perspective

Scot J Hutton

Who is this guy?

- Passionate about cyber security, national need for cyber security, giving back to our communities, and gaming
- Lead the cyber security program for a \$45-billion, S&P listed REIT
 - I absolutely love what I do for a living!
- Received my MBA from Pepperdine (MBAJ)
 - Fun fact, on the day I earned my MBA, I could say one year prior I had no degrees!
- Retired Marine served during the OIF/OEF wars





An Unusual Path

The high school years...

Surprising to some, not surprising to others, I graduated from high school by the skin of my teeth with C's and D's.

In high school the only time I spoke to my counselor was when I failed a combined English & History class my Junior year.

My path...

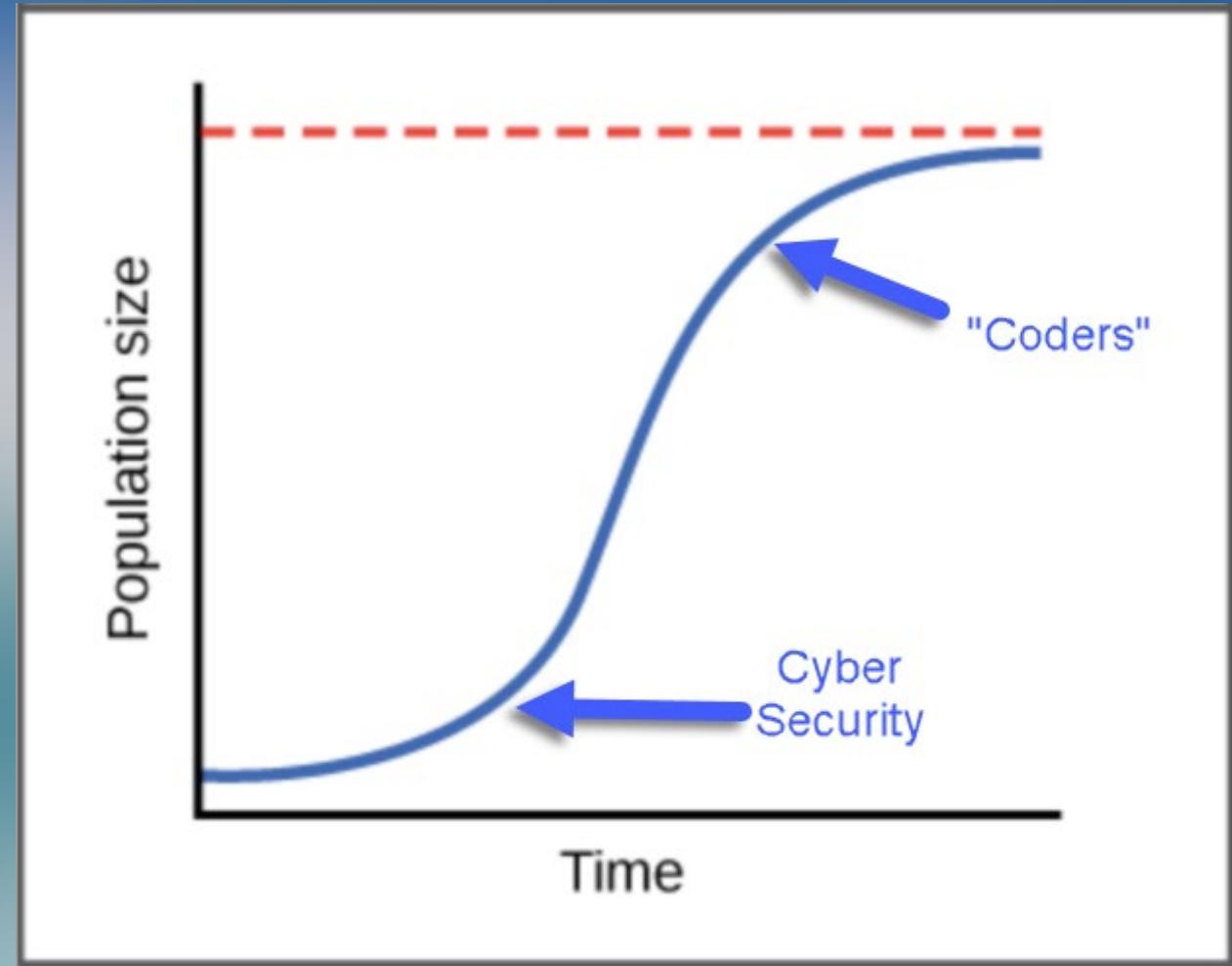
- High School
- Junior College (did much better when graded on outcomes, not practice)
- Marine Corps
- Luck landed me at Intuit the first day of my USMC retirement
 - Very supportive of certifications
 - GSEC, GCIH, CISSP, MSCE, SEC+, MCSE + Sec, and many more
- Skip forward a few decades and I run the IT Risk and cyber security function of a \$45 billion dollar REIT.

I Want to be in Technology!

Why do we always start with coding?

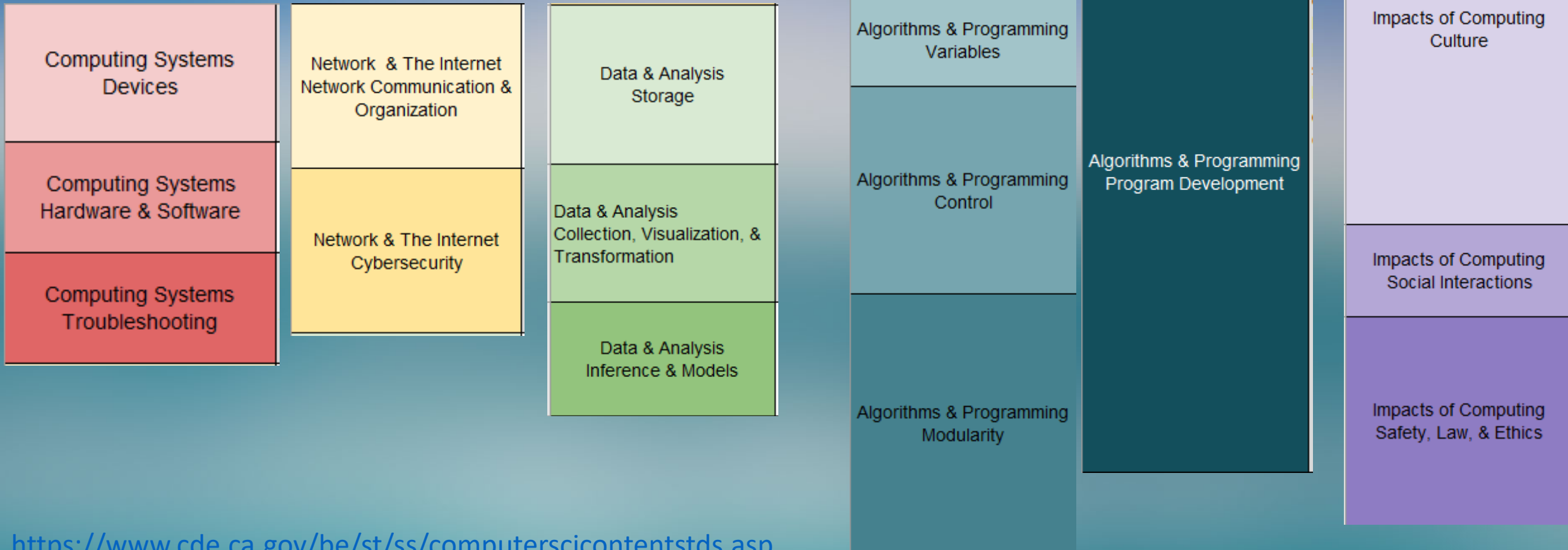
“Every technology field requires coding.”
-True

- Every job requires communication, so why not communication degrees for everyone?
- I have heard people say, “it’s all going to the cloud so no need for any more tech people!”
 - The cloud is just someone else’s computer! It’s still a computer and much more complex!



CA Computer Science Standards

Major concepts...



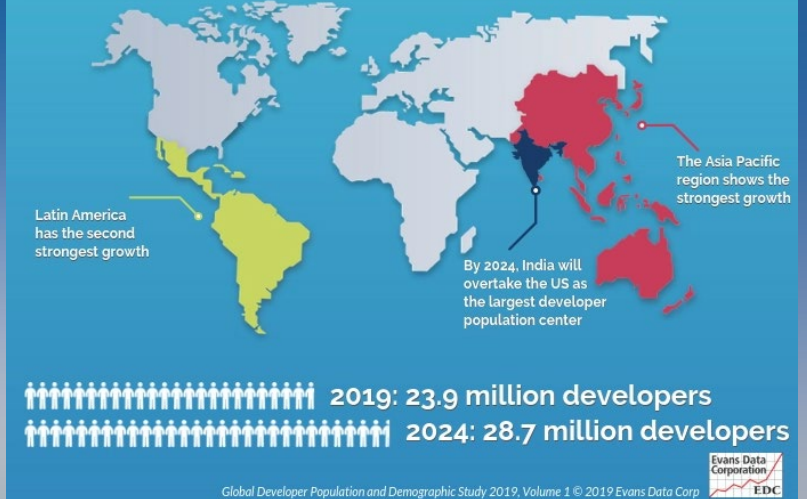
<https://www.cde.ca.gov/be/st/ss/computerscicontentstds.asp>

My Reality of Coders

(just my perspective)

- In 20 years of working in technology, nearly 80% of the software engineers I have worked with have been off-shore or “near-shore”.
- It used to be India but Central and South America are growing at incredible rates.
- This does not mean that the US does not produce skilled software engineers. It just means that employers can find less expensive employees.

Global Developer Population and Demographic Study 2019, Vol 1



WORLDWIDE PROGRAMMING LANGUAGE STATISTICS



(*) JavaScript includes CoffeeScript, TypeScript

(†) The “least popular” column only includes sectors for which we have data on the language in question.

My Reality of Coders

(just my perspective)

If we are outsourcing a high % of these jobs, doesn't that mean they are in super high demand?

Are they high in demand or are they close to becoming commoditized?

The world is small and if you can get higher quality for 1/10th of the cost, why wouldn't you?

The Unique Position of Cyber

I love what I do!

Many of these jobs cannot be outsourced.

For a ton of reasons, national security, cyber conflict, general dis-trust

Every year for the last 10 years, my budgets and headcount increases without failure

Opportunities

...and demand

In 2021, the [Cybersecurity Workforce study](#) estimates there are 4.19 million cybersecurity professionals worldwide. Year over year, that's an increase of 700,000 workers.

The decline from 3.12 million to 2.72 million unfilled job openings was reported in October by (ISC)², the world's largest nonprofit association of certified cybersecurity professionals.

The study shows that the cybersecurity workforce gap increased in every region in the world except the Asia-Pacific region. Even at that, Asia-Pacific still had a workforce gap of 1.42 million, the largest of any region in the world.

There is an explosion in cybersecurity job postings which is now three times greater than the overall IT market, even though cybersecurity accounts for just 13% of all IT jobs.

President Biden's \$2 trillion American Jobs Plan includes \$20 billion for state, local, and tribal governments to update and improve cybersecurity controls for their energy systems including recruitment and training of workforce.

CyberSN: <https://cybersn.com/about-us/news/700k-more-cybersecurity-workers-but-still-a-talent-shortage/>

Opportunities

already in play



CyberPatriot



Job Market and qualifications

Salary Estimates

 Payscale

\$51k–110k per year
Software Developer
United States

 Glassdoor

\$68k–140k per year
Software Developer

 ZipRecruiter

\$54k–120k per year
Software Developer
California

Software Developer


A computer programmer, sometimes called a software developer, a programmer or more recently a coder, is a person who creates computer software. The term computer programmer can refer to a specialist in one area of computers or to a generalist who writes computer programs. [Wikipedia](#)

Entry level education: Bachelor's degree

<https://www.glassdoor.com> > Salaries > security-enginee...  26

Salary: Security Engineer (February, 2022) | Glassdoor

The national average salary for a Security Engineer is **\$111,691** per year in United States. Filter by location to see a **Security Engineer salaries** in your area.


How much does a Security Engineer in United States make? 

What is the highest salary for a Security Engineer in United States? 

<https://www.payscale.com> > research > Salary 


Average Security Engineer Salary - Payscale

The average salary for a Security Engineer is **\$95817**. Visit PayScale to research **security engineer salaries** by city, experience, skill, employer and more.

<https://www.indeed.com> > ... > Salaries  17


Security Engineer salary in United States - Indeed

Jan 24, 2022 — The average **salary** for a **Security Engineer** is **\$103745** per year in United States. Learn about **salaries**, benefits, **salary** satisfaction and ...

<https://www.indeed.com> > ... > Salaries  17

Security Engineer salary in California - Indeed

The average **salary** for a **security engineer** is **\$85,473** per year in California. 177 **salaries** reported, updated at January 24, 2022. Is this useful?

<https://www.salary.com> > Research > IT - All 

Entry Level Security Engineer Salary

The average Entry Level **Security Engineer salary** in the United States is **\$90197** as of January 27, 2022, but the salary range typically falls between \$77073 ...



Cyber Security in higher education

from the trenches

Just hired an individual with a masters degree in cyber security

My perspective.....

- **Our higher education systems spend 50% or more of the time focusing on skills that really have no need or value in the real world.**
- **What they teach is frequently outdated before the student graduates.**
- **What they learn is largely academic and not applicable to real work career paths.**

As an employer...

- **I NEVER require a degree for any of my applicants given the above and the inequitable distribution of higher education opportunities.**
- **I also never discourage anyone from pursuing higher education.**



Cyber Security Reality

from the trenches

- **SANS GCIH, GCIA, GSEC, really any non-entry level certification is a “walk on”**
 - **(3 months to get one of these certificates)**
- **Security +**
 - **Focusing on the actual activities that security people do!**



