



# CYBERSECURITY

Center of Excellence

WASHINGTON STATE

Hosted by  
**Whatcom**  
COMMUNITY COLLEGE

## News & Updates

July 2024

### How does AI "augment" versus "replace" tech jobs?

This article will be of keen interest to computer science and cybersecurity teachers as well as career counselors.

Industry analysts believe that the IT industry and many other industries will continue to rapidly adopt AI. Some jobs will be replaced, others will be augmented, and some entirely new job types will be created.

As college programs are developed and promoted to consumers, it is critical to understand where industry is headed as it relates to AI. This article summarizes the AI horizon for IT career seekers.



[Read More](#)

### Bret Arsenault, Microsoft's Chief Cybersecurity Advisor visits Whatcom Community College



#### Skills Gaps

Mr. Arsenault provided his globalized perspective on skills gaps in the information security sector. His list includes:

- Containers and microservices
- SBOM skills and supply chain security
- Securing Hybrid Environments
- Cloud Native App development
- Artificial Intelligence
- Threat Modeling
- Disaster Planning
- End to End Security and Access Management

In this collaborative meeting at the Whatcom Community College campus, the CCoE and NCyTE learned how Microsoft can assist

#### WCC cyber program highlights

The AAS-T degree at WCC has earned the CAE-CD designation. The potential to increase enrolment is

cybersecurity programs in Washington community and technical colleges.

Opportunities exist for internships and recruitment of more adjunct faculty.

high, but the challenge is to find enough instructors.

Other challenges:

- Hybrid classroom
- Remote access
- Purchasing cloud resources from vendors for students to use in class-work
- Tech at home for rural and low income students
- Flexibility for students with families
- 2-year degree stretched longer due to students working full-time & learning part-time.
- Not enough faculty

[Read More](#)

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## Professional Development Opportunities

### Virtual Cyber Career Challenge

Open to college students seeking to gain real-world experience in cybersecurity. Ten weeks long, March through May 2025.

### Faculty Development: AWS Cloud

- Online, Mon Aug 12, 8AM to 2PM
- For Community and Technical college instructors
- Covers what you need to know to effectively teach AWS

### CMMC 2.0 Workshop

- Online, Aug 15 & 16, 8AM to 3PM
- What cybersecurity faculty needs to know about the latest revision to the Cybersecurity Maturity Model Certification and the new DoD requirements.

NCYTE  
CENTER

For registrations, see the Events Calendar at the National Cybersecurity Training & Education Center.

<https://www.ncyte.net/about-ncyte/events>

[NCyte Event Calendar](#)

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## CrowdStrike Lesson - QA is Critical in Cybersecurity

How could a simple memory exception stall much of the globe?

CrowdStrike has an 8.5 million computer install base of its cybersecurity software product. These computers are used by many large corporations in industry and retail. When computers won't boot, business comes to a halt.

This article describes how a memory exception escaped robust testing procedures and sent millions of Windows systems into endless

```
EXCEPTION_RECORD: fffffb0d18d3ec28 -- (.cmd_0xfffffb0d18d3ec28)
ExceptionAddress: fffffb021d1335a1 (csagent!0x0000000000000000)
ExceptionCode: c0000005 (Access violation)
ExceptionFlags: 00000000
NumberParameters: 2
Parameter[0]: 0000000000000000
Parameter[1]: 0000000000000000
Attempt to read from address 0000000000000000%

CONTEXT: fffffb0d18d3e460 -- (.cmd_0xfffffb0d18d3e460)
rax=fffffb0d18d3f2b0 rdx=0000000000000000 ccx=0000000000000000
rbp=fffffb0d18d3f280 rsi=ffff9a81359619a4 rdi=ffff9a813596a05c
rsp=fffffb021d1335a1 rbp=fffffb0d18d3e460 rbp=fffffb0d18d3e460
r10=0000000000000000 r11=fffffb0d18d3e460 r12=0000000000000000
r13=0000000000000000 r14=0000000000000000 r15=fffffb0d18d3f4d0
iopl=0         up   e1  cs=002b  fs=0053  gs=002b             efl=00050206
csagent!0x00000000:
fffffb021d1335a1 458b08          mov     x9d.dword ptr [r8], ds:002b:00000000'0000000c+????????
Resetting default scope

BLACKBOXBSD: 1 (!blackboxbsd)
BLACKBOXNTFS: 1 (!blackboxntfs)
BLACKBOXPPR: 1 (!blackboxppr)
BLACKBOXVMILOGON: 1
PROCESS_NAME: System
HEAD_ADDRESS: 0000000000000000%
ERROR_CODE (NTSTATUS) 0xc0000005 - The instruction at 0x%p referenced memory at 0x%p. The memory could not
EXCEPTION_CODE_STR: c0000005
EXCEPTION_PARAMETER1: 0000000000000000
EXCEPTION_PARAMETER2: 0000000000000000%
EXCEPTION_STR: 0xc0000005

STACK_TEXT:
fffffb0d18d3e460 fffffb021d109152 : 00000000'00000000 00000000'e01f0084 fffffb0d'18d3f282 fffffb02'1e
fffffb0d18d3f000 fffffb021d10a3e9 : 00000000'00000000 00000000'00000010 00000000'00000000 fffff9a8'bf
fffffb0d18d3f130 fffffb021e49541 : 00000000'00000000 00000000'00000000 00000000'00000000 00000000'0c
fffffb0d18d3f260 fffffb021e145d9b : fffff9a8'93735280 fffffb0d'18d3f540 00000000'00000000 00000000'0c
fffffb0d18d3f4d0 fffffb021d0b8fd0 : 00000000'00003011 fffffb0d'18d3f790 fffff9a8'992cbb30 fffff409'b7
```

crash and reboot cycles.

The lesson learned for Cybersecurity and Software Development educators: Don't just teach how to build code, teach how to properly test it and cautiously deploy it. Good QA practices continue to evolve and this is a key element of secure IT environments. Click the Read More button for an article that can be discussed in the classroom.

Read More

## Will WA State Require Computer Competency to Graduate High School?

Senate Bill 5049 requires all high school graduates to demonstrate competency in computer science skills before graduation. The bill did not pass in the 2023-24 session but will likely be revised and presented for a vote again next year.



Opportunity is now open for feedback. Educators in the IT and Cybersecurity space are asked to chime in.

Click Read More to understand what's planned and how you can get involved.

Read More

## Upcoming Events

### BlackHat USA Next Month!

Each year, cybersecurity specialists everywhere look forward to the BlackHat conferences. If they can't attend in person, they at least watch for the post-show highlights and insights.

Although registration is closed for in-person attendance, you can still register for on-demand access online - available one week after the live event (Aug 16 - Sept 16)

Registration ends Aug 2nd. Cost is \$1,659 with



scholarships and discounts available for the academic community.

College faculty can apply with the CCoE for a professional development stipend to help cover the cost of registration.

[Black Hat  
Registration](#)

[Stipend Application](#)

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## About the Cybersecurity Center of Excellence (CCoE)

Hosted at [Whatcom Community College](#) in Bellingham, WA, the CCoE serves as a state-wide hub to enable Washington state's community & technical college system to be the epicenter for cybersecurity education and connect employers with a highly skilled workforce, empowering our region to thrive securely and safely.



Photo of Syre Student Center at Whatcom Community College

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