



Behind the Curtain:

From Zero to Training at BlackHat and DefCon

Ken Smith

Director – Sales Engineering (Enterprise) – Great Lakes

Framing the Conversation

- Up front, this is *not* a sales talk (Arctic Wolf doesn't sell or develop this kind of training...)
- I spent a decade in higher education and ran L&D for an offensive security firm
 - What attendees don't see: process behind the training
 - Not about **what** we taught, but **how** we got there
 - Playbook for coaching technical experts into teachers





Ken Smith, Arctic Wolf

Director of Enterprise Sales Engineering

Formerly

- Director of L&D, *Security consulting firm*
- National Lead, Cyber Testing, *Large consulting firm*
- Red Team, *Large financial institution*
- SIGINT Operator, *5th Special Forces Group (Airborne)*

Academia

- Former Professor of Network Security, *University of Mount Union*
- Former Research Proposal Coordinator, *SANS Tech Institute*

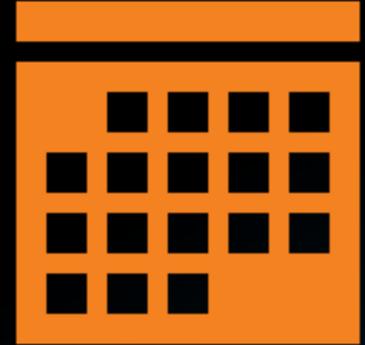
Education

- MA, Security Policy Studies, *Notre Dame College*
- AA, Arabic, *Defense Language Institute*
- BS, Computer Info Systems, *University of Dayton*
- OSCP, OSWP



Journey into Education & Training

- 2010 – First exposure to cyber (military)
- 2012 – 5-week kinetic offensive cyber ops course
- 2012 – Distilled into 3-day event (fell in love with teaching)
- 2014 – CTF w/ Univ. of Mount Union → teaching role
- 2015 – Built training program for interns/new hires
- 2024 – Director of L&D at Praetorian



The Big Goal

- *Ambition*: taking training to market
- *Strategy*: lean into strengths (CI/CD, IoT)
- *Reality check*: don't overcommit, but there's a benefit to oversubmitting



Development Process

Wash-Rinse-Repeat

Getting started

- What does your team do?
- What is your expertise?
- What are your timelines?
 - Length of the course
 - Development

Coaching

- Weekly sessions
- Content & Teaching
- Get others involved

Submissions

- Start with regional cons
- Tailor submissions
- Build a library
- Use the platforms out there

Things to determine in advance!



Development Process

Step 1 - Whiteboarding

- Brain dump sessions
 - Go wide – it is much easier to cut content than to add late stage
 - No bad ideas – Be sure to note opportunities for exercises
- Soft-organize/mind-map topics
 - Don't be formal
 - Useful exercise of 'what else should we cover on this topic?'
- Don't worry about the delivery time constraints at this point
 - Do consider your intended audience



Development Process

Step 2 - Outlining

- A more formal organization
 - What are your Learning Objectives?
 - Work in chunks, sub-topic-by-sub-topic
 - Don't be afraid to rearrange and/or add as you go
- Kitchen-table it
 - As you're outlining, practice as if you were giving a lecture
 - You'll naturally start adding anecdotes, sharing examples, etc.
- Note opportunities for points of interactivity



Development Process

Step 3 – Final Outline

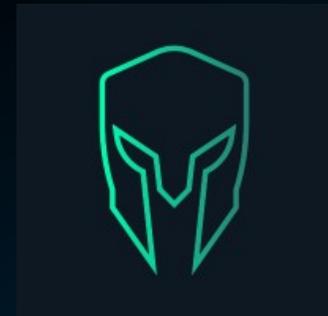
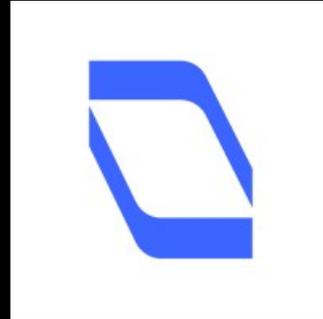
- Run it through an LLM
 - Be very specific
 - “What have I missed?”
 - “Don’t remove anything I’ve included or change the order without asking.”
 - Can be helpful, but do *not* start here from scratch
- Make sure you are including as many points of interactivity as possible
 - Start to think through your technical requirements
 - Include a mix...



Development Process

Step 4 – Exercise Creation

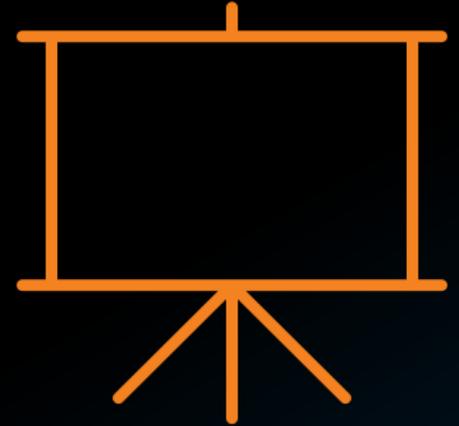
- My favorite part - Very topic-dependent
- Do you have a platform?
 - Cympire
 - Immersive Labs
 - AWS Console
 - Home lab
- The more real-world and relatable, the better
- Teach – Show – Do model



Development Process

Step 5 – Slides

- Slides is a catch-all for all the learning material
 - Participant guide
 - Instructor guide
 - Supplemental materials
- Lean into your LLM of choice here...
 - “Here is my outline for a X day course covering Y topic.”
 - ”Generate a PowerPoint slide deck with a cover slide, whoami slide, and section headers.”



Development Process

What do you end up with?

- Actual course content
 - Slides
 - Exercises
 - Lab
- Guides
 - Instructor
 - Participant/Exercises
- Infrastructure – Platform dependent
- Submission materials



Tailoring Submissions

Events Big and Small

- Most events will post their expectations or themes
 - Do your best to align your submission to each
 - LLMs can be of help here, but *be sure* to review everything
- Go above and beyond
 - If it asks for a sample of slides, give more
 - If it asks for an email, include a PDF of your material
- Your most robust submissions become your 'library'



Tailoring Submissions

Events Big and Small – *Black Hat*

- Robust training opps – multiple events & CFTs
- Very prescribed process
- Sign-up site for submitting training
 - Presenter bios
 - Teaching material samples
 - Intended audience, learning objectives
- Pieces-parts submitted as attachments
- Recognizable, established players

blackhat.com/all-for-training.html

informa -

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CALL FOR TRAININGS

IMPORTANT DATES | CFT SUBMISSIONS ACCEPTED

BLACK HAT ASIA 2025

• Call for Trainings Open: July 23, 2025

• Call for Trainings Closed: September 1, 2025

• Trainings Dates/Location: April 21-24, 2025 Marina Bay Sands, Singapore

[Submit Proposal](#)

Terms & Dates are subject to change.

CIOSFD:

BLACK HAT EUROPE 2025

• Call for Trainings Open: March 3, 2025

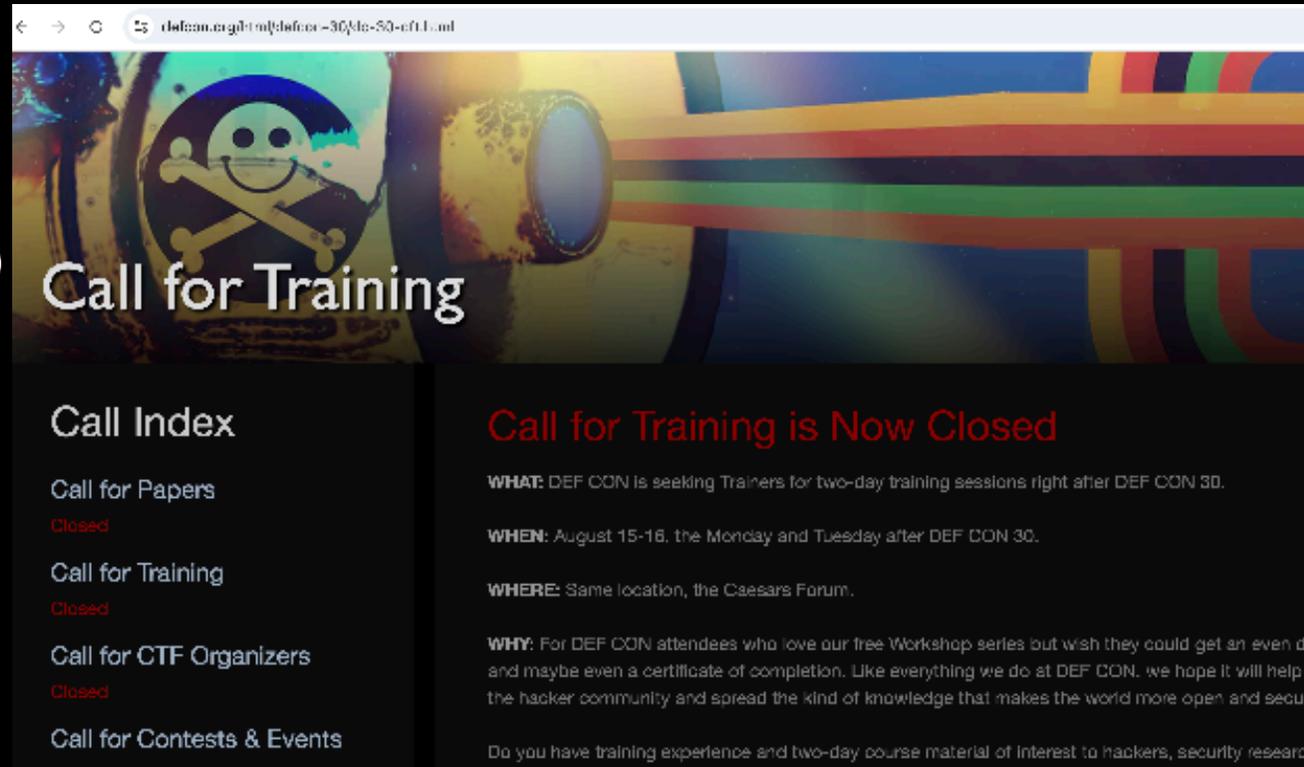
• Call for Trainings Closed: April 1, 2025



Tailoring Submissions

Events Big and Small – DefCon

- Multiple events and CFTs (watch the dates!)
 - Not as robust
 - Similar timeline to Black Hat (Vegas)
- Much less formal process – “Just” an email
- But significantly fewer acceptances
 - ~20-40 each year
 - Best I can tell*
- Reused materials from Black Hat – Made the necessary edits/changes



Tailoring Submissions

Events Big and Small – Regional and Local Events

- Always keep an eye out for the regional conferences
- Great way to get ‘reps’ in with less competition for slots
- Strong recommendations
 - ThotCon, GrrCon, Hack Space Con, CornCon
 - BSides local cons
 - Use Sessionize and CFPTime
 - Organizations like OWASP, Infragard, ASIS...



After Acceptance

Now What?

Coaching Sessions

- Content and exercises
- Technical expertise required
- Continue to kitchen-table

Pacing and Flow

- Over prepare content
 - Again, easier to cut
 - No need to vamp
- Have jokes/stories pre-loaded
- You will almost always be fast
 - Fear
 - Excitement

Labs

- Participant guides are key
- Redundancy, resilience, fallback plans
- Plan for scale
 - Single environment?
 - Instances?
- Record all demos in advance

Now the real work begins!



Teaching the Teachers

Coaching Your SMEs

- You should not be the expert in everything...
 - Deep expertise \neq teaching skill
 - Facilitator role: translate, scaffold, coach

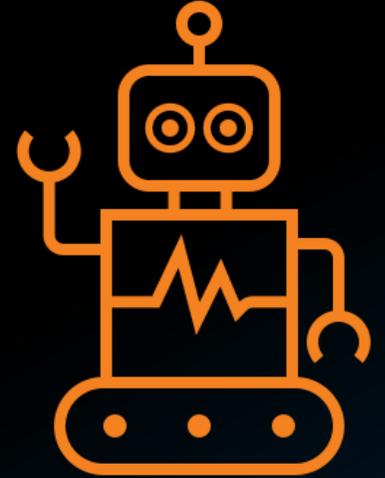
- Rehearsals: build confidence
 - Kitchen-table!
 - I'm not a huge fan of 'live' rehearsals – a *lot* of time wasted



Teaching the Teachers

GenAI & LLMs

- Conversational collaboration
 - Treat AI as a partner, not vending machine
 - Use for brainstorming, drafts, scenario variations
- Review is non-negotiable
 - Hallucinations happen and aren't always obvious
 - Check: accuracy, timing, flow
 - Have your experts stay involved the entire time



Teaching the Teachers

GenAI & LLMs

- **Strengths:** ideas, multiple explanation levels, polish storytelling
- **Weaknesses:** accuracy gaps, voice consistency, timing
- **Takeaway:** AI speeds drafts, humans ensure authenticity



Teaching the Teachers

LLM Demo

ChatGPT 3.5

Outline

- 1. Introduction (5 minutes)**
 - Hook: Brief story of speaking in a BlackHat or DefCon class and what the audience does ("I see —the curtain—")
 - Your background: Professional, offensive security leader, or former training facilitator.
 - Purpose: This talk is not about teaching networking, but about learning how to teach.
 - Audience benefit: Whether you want to submit to major conference tracks or just build better internal training, you'll walk away with practical techniques.
- 2. From Idea to Acceptance (7 minutes)**
 - **Concept generation**
 - Tapping engineers' problem areas (CI/CD attacks, IoT pentesting as case studies).
 - Aligning technical expertise with conference audience needs.
 - **Whiteboarding & brainstorming**
 - The BlackHat session: case studies, course goals, rough notes.
 - Use of structured prompts (Who's the learner? What's the outcome?)
 - **Submission strategy**
 - BlackHat: commercialized, detailed ROI expected.
 - DefCon: community-driven, attack on edu. for the people!
 - Tailoring abstracts and outlines to each.
- 3. Building Effective Content (10 minutes)**
 - **Outlining as storytelling**
 - Breaking down expertise into digestible and interesting, but not overly esoteric.
 - Gathering anecdotes and war stories to humanize technical material.
 - **Teaching the teachers**
 - Helping SMEs with little teaching experience.
 - Translating deep knowledge into accessible segments.
 - Using high-level techniques contrasting with low-level, repetitive.
 - **GenAI as a content partner**
 - Ask anything

Source: [an information security conference talk](#).

I am giving a presentation at an information security conference in a few weeks and need to create the outline. My title is "Behind the Curtain: Coaching Teams from Zero to Training at BlackHat and DefCon." My abstract is: "Behind many BlackHat and DefCon trainings are facilitators who help technical experts navigate the path from concept to conference acceptance. This talk shares the approach our team used to develop training courses on CI/CD pipeline attack paths and IoT pentesting that were accepted at these prestigious security venues. I'll outline our collaborative content development process: organizing brainstorming sessions, structuring whiteboarding exercises, developing outlines, and creating presentation materials. You'll hear practical insights on supporting technical experts who have deep knowledge but may have limited teaching experience, and considerations for tailoring submissions to BlackHat's commercial environment versus DefCon's community focus. The presentation includes techniques we found helpful, such as thoughtfully integrating GenAI for content creation, collecting relevant stories and anecdotes, and implementing rehearsal approaches that build confidence while maintaining authenticity. I'll discuss the lessons learned while working behind the scenes to help engineers share their expertise effectively. This talk is for anyone interested in helping technical teams share their knowledge through conference trainings. Whether you're considering submitting to major security conferences or simply want to improve your team's knowledge-sharing capabilities, you'll gain practical insights from our journey from initial concept to successful training acceptance."

Given my background in higher education and offensive security (and my history of presenting and developing content) can you help me create an outline for a 45 minute presentation?



Conclusions

Lessons Learned

- Things to emphasize during development
 - Cadence
 - Use your strengths
 - Tailor your submissions to individual CFTs
- Things not to do during development
 - Late or incomplete submissions
 - De-emphasize labs or participant guides



Conclusions

Lessons Learned

- Recap: Goal → Process → Acceptance → Delivery → Lessons
- Don't forget about the regional and local events!
- Efficiency is the name of the game



Q&A

