

# **INTERVIEW PREPARATION**

**UPSKILL IN CYBER // JOHN CORCORAN // AUGUST 2022**

# Hello

- # John Corcoran
- # Working in cyber since 2009:
  - # Currently: cyber security data science, public sector.
  - # Previously: incident response / digital forensics / cyber research, private sector.
- # Opinions are my own and do not reflect those of current / former employers:
  - # I have recruited, but am not a recruiter.



# Context

- # Searching 'preparing for cyber security interview' seems to get you either lists of tech questions, or basic personability advice.
- # I've tried to avoid too much generic interview advice in this session – but it all applies!

**Top 80+ Cybersecurity Interview Questions and Answers for 2022**

## **Top Cyber Security Interview Questions**

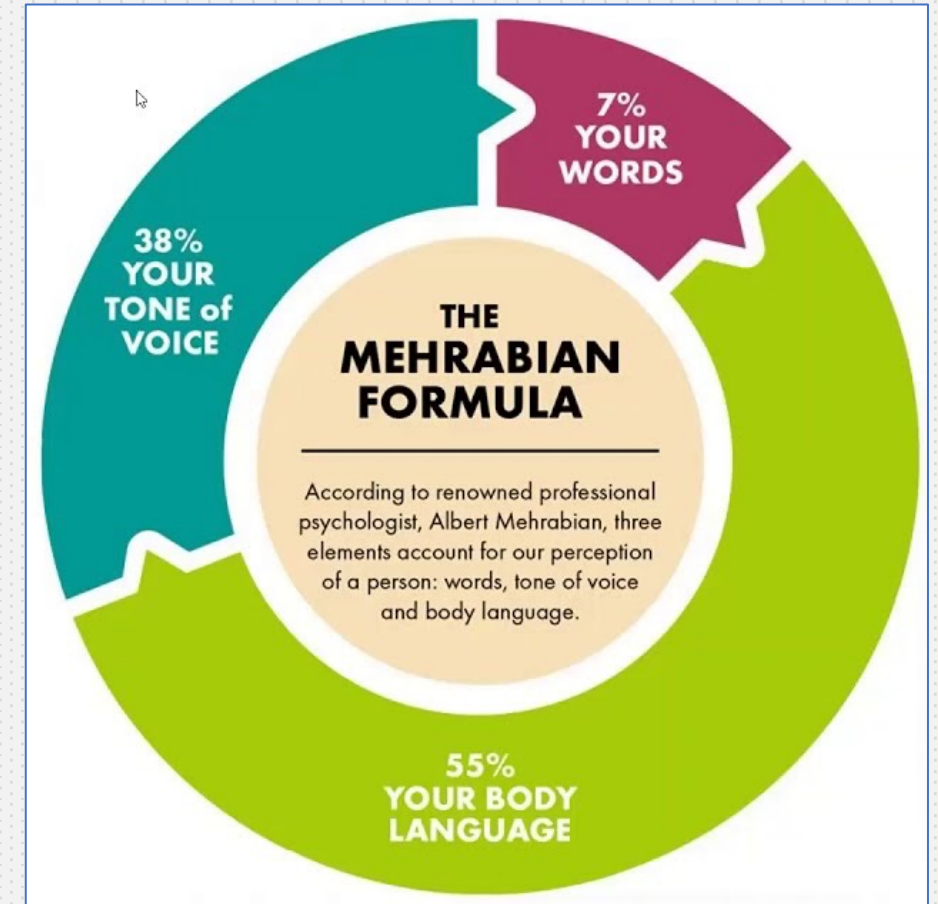
1. [What is Cryptography?](#)
2. [What is the difference between Symmetric and Asymmetric encryption?](#)
3. [What is the difference between IDS and IPS?](#)
4. [Explain CIA triad.](#)
5. [How is Encryption different from Hashing?](#)
6. [What is a Firewall and why is it used?](#)
7. [What is the difference between VA\(Vulnerability Assessment\) and PT\(Penetration Testing\)?](#)
8. [What is a three-way handshake?](#)
9. [What are the response codes that can be received from a Web Application?](#)
10. [What is traceroute? Why is it used?](#)

**Top 110 Cyber Security Interview Questions & Answers (2022)**

**47 Cyber Security Interview Questions & Answers [2022 Guide]**

# ***Main message for this session***

- # Expectations are (usually) realistic for early career recruitment.
- # Interviewers are (usually) accommodating, decent human beings: they want you to succeed.
- # Being nervous is OK!
- # **Enthusiasm, personability and aptitude are the main qualities that interviewers are looking for.**



# ***Preparing for interview***

1. Understand where the role sits.
2. Employer recruitment strategies.
3. Employer recruitment frameworks.

# Preparing for interview

## 1. Understand where the role sits

MAJOR OVERSIMPLIFICATION WARNING

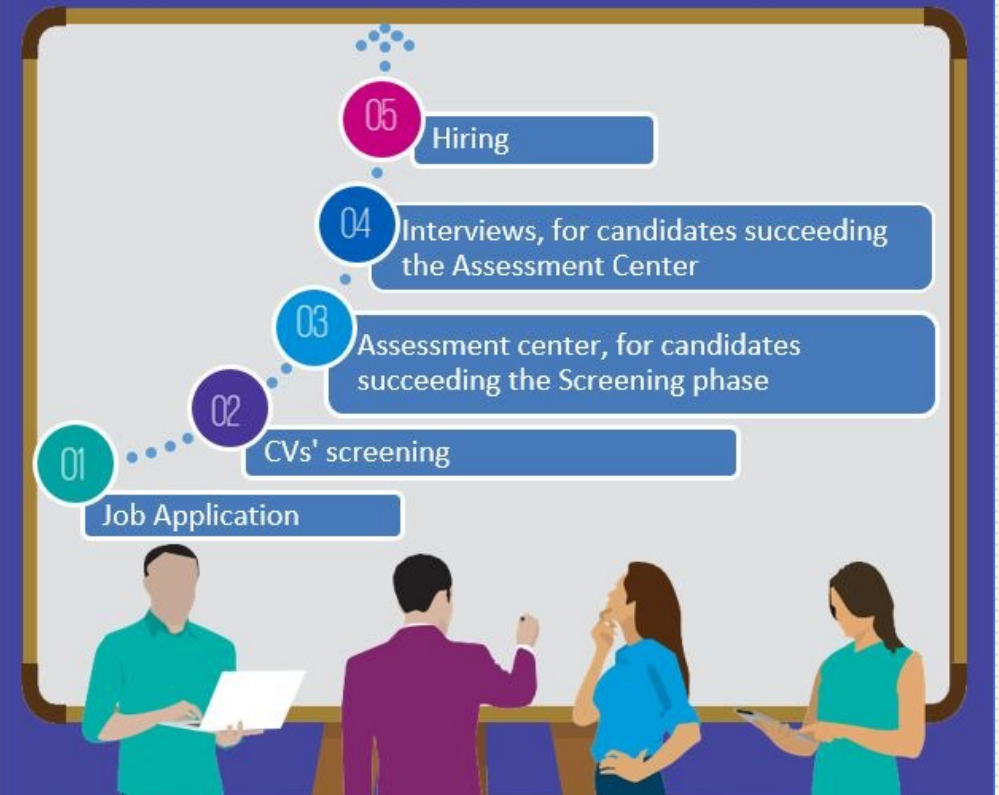
	Product/service delivery	Advisory, policy and programme
Externally-facing	<p><b>Sells* cyber security 'things' to clients/customers.</b></p> <p><b>Example:</b> professional services firm holds SOC and incident response retainer agreements with multiple clients.</p> <p><b>Example question:</b> how do you scale the service during periods of increased client demand (e.g. new wide-reaching zero day published)?</p>	<p><b>Sells* cyber security 'thinking' to clients/customers.</b></p> <p><b>Example:</b> professional services firm provides crisis management procedure development to individual clients.</p> <p><b>Example question:</b> how have client concerns changed over the last few years?</p>
Internally-facing	<p><b>Delivers cyber security 'things' within the organisation.</b></p> <p><b>Example:</b> internal SOC and threat intelligence service to identify and contain cyber threats on the organisation's network.</p> <p><b>Example questions:</b> how have attacks against your network changed over time?</p>	<p><b>Delivers cyber security 'thinking' within the organisation.</b></p> <p><b>Example:</b> developing policies and procedures for reporting phishing attacks within an organisation.</p> <p><b>Example question:</b> how do you measure improvement in user responses to phishing exercises?</p>

# Preparing for interview

## 2. Employer recruitment strategies

- # Larger firms with sizeable apprentice / graduate yearly recruitment tend to seek generalists: enthusiasm/personability/aptitude beats in-depth tech knowledge.
- # Tailor approach based on nature of advert and during interview.
- # Possible question:
  - # "Is there any cross-skilling / movement between teams for new starters?"

### Steps of the program





# Preparing for interview

## 3. Employer recruitment frameworks

- # Recruitment frameworks provide a templated approach for employers to base recruitment and interviews around.
- # Most commonly found in public sector – but methodologies are useful for any interview.
- # Methodologies:
  - # STAR: Situation, Task, Actions, Results
  - # CAR: Context, Action, Result
  - # Further info: search “Civil Service success profiles”





# ***Delivery / format of interview***

1. Quantity and delivery format.
2. Exercises and presentations.
3. Questions you may be asked.

# Delivery / format of interview

## 1. Quantity and delivery format

- # Potential number of interviews is highly variable: could be anything from one interview through to four+, irrespective of experience levels.
- # In-person preferable, but may (still) be over video call:
  - # Over video, worth an early expectation setting about not meaning to inadvertently speak over someone (if interviewer doesn't do this already), or inability to see questions if presenting material.



# ***Delivery / format of interview***

## **2. Exercises and presentations**

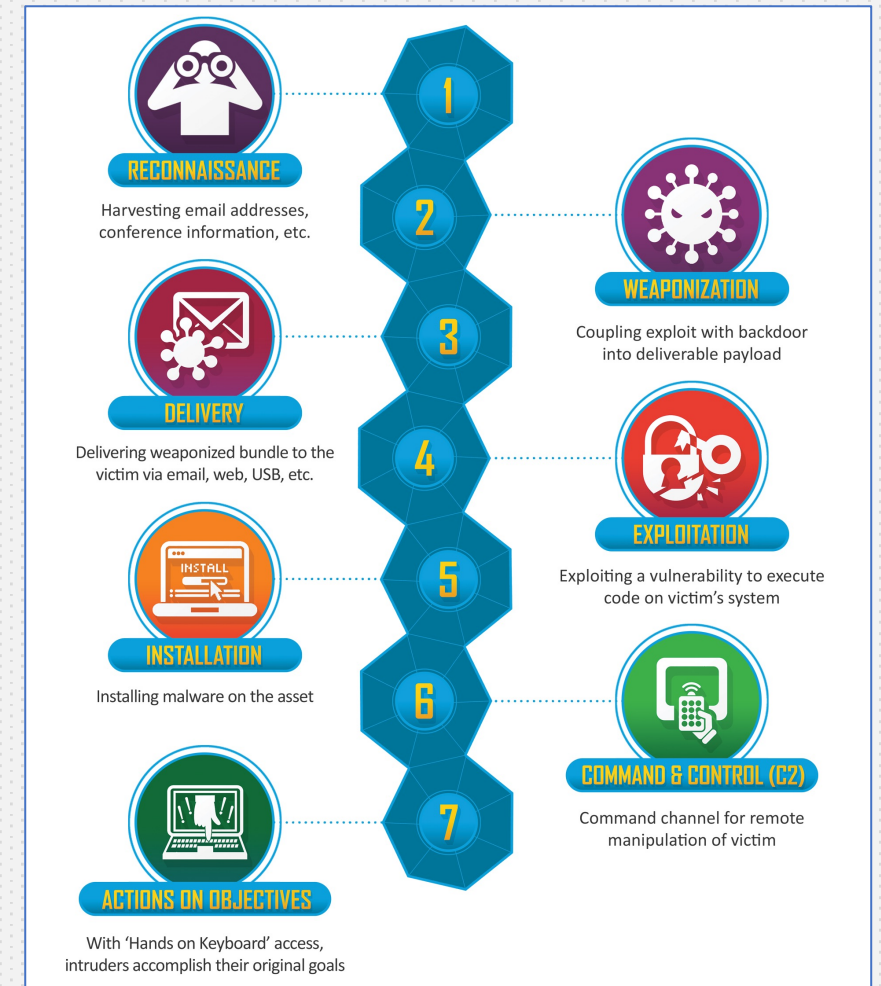
- # Take-home exercises less common for early careers: but could take the form of a file to analyse (e.g. memory/disk image, or log file).
- # Standard in-person technical exercise advice applies:
  - # Show thinking if you don't know the actual answer; pseudo/broken code is fine!
- # Presentations more common: depending on the ask, content only tangential to cyber may be fine.
  - # Confirm whether time windows given for presentations are strict limits, or flexible.



# Delivery / format of interview

## 3. Questions you may be asked

1. What is your understanding of how a cyber attack begins and progresses?  
# Cite: kill chains (e.g. Lockheed Martin), MITRE ATT&CK framework.
2. What do you think are the main cyber risks our organisation faces?  
# Cite: sector research on cyber threats, any recent incidents in that sector (or if not, whatever the most recent major newsworthy vulnerability and exploitation was).





# Highlighting strengths and enthusiasm

- # SANS is recognised across industry as the gold standard for technical training: having two certifications is an excellent position to be in!
- # Outside of standard personability advice, highlight enthusiasm by:
  - # Researching a couple of recent, high profile cyber incidents, vulnerabilities, or threat groups that are likely relevant to the organisation.
  - # Any open source tools or techniques that you've used in SANS or during your own research.
  - # If opportunities to mention them don't come up organically, can mention during questions (i.e. expand 'questions' to give a quick talk on your interest in the domain, citing research you've done).



# Useful open source resources

## # News:

- # NCSC: <https://www.ncsc.gov.uk/news> – filter to ‘Vulnerabilities’ – read latest advisory summary report / posts for latest high profile vulnerabilities: cyber teams will have been working recently to resolve these, so an excellent talking point.

## # Twitter

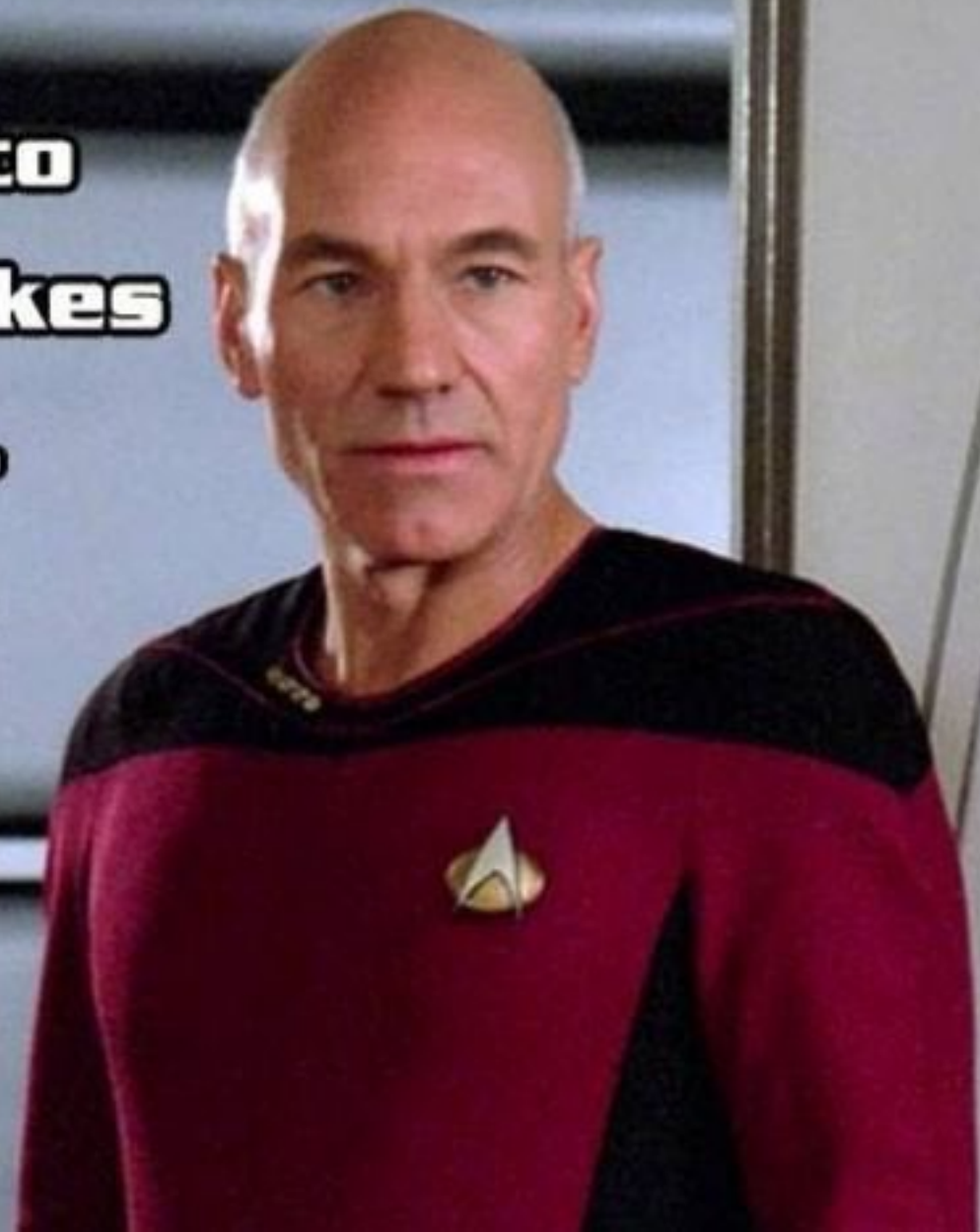
## # Tools / techniques:

- # <https://attack.mitre.org/>
- # <https://www.sans.org/posters/>
- # <https://awesomedfir.com/>
- # <https://github.com/meirwah/awesome-incident-response>
- # <https://github.com/hslatman/awesome-threat-intelligence>

### TOPICS

<input type="checkbox"/> Active cyber defence	1
<input type="checkbox"/> Cyber attack	6
<input type="checkbox"/> Cyber threat	13
<input type="checkbox"/> Devices	3
<input type="checkbox"/> Education	3
<input type="checkbox"/> Logging	1
<input type="checkbox"/> Mitigation	3
<input type="checkbox"/> Patching	4
<input type="checkbox"/> Personal data	1
<input type="checkbox"/> Phishing	1
<input type="checkbox"/> Video conferencing	1
<input checked="" type="checkbox"/> Vulnerabilities	45

**"It is possible to  
commit no mistakes  
and still lose.  
That is not a  
weakness.  
That is life."**





# ***Thanks for your time!***

**Any questions?**