

How to start and build a CyberSecurity Career



Pace & Space (5 min Q&A @ End)
45 Min / 27 Slides = 1:30m Per

Starting a Cybersecurity career

01

What does it take?

02

What does it look like?

03

The job titles are so
confusing?

04

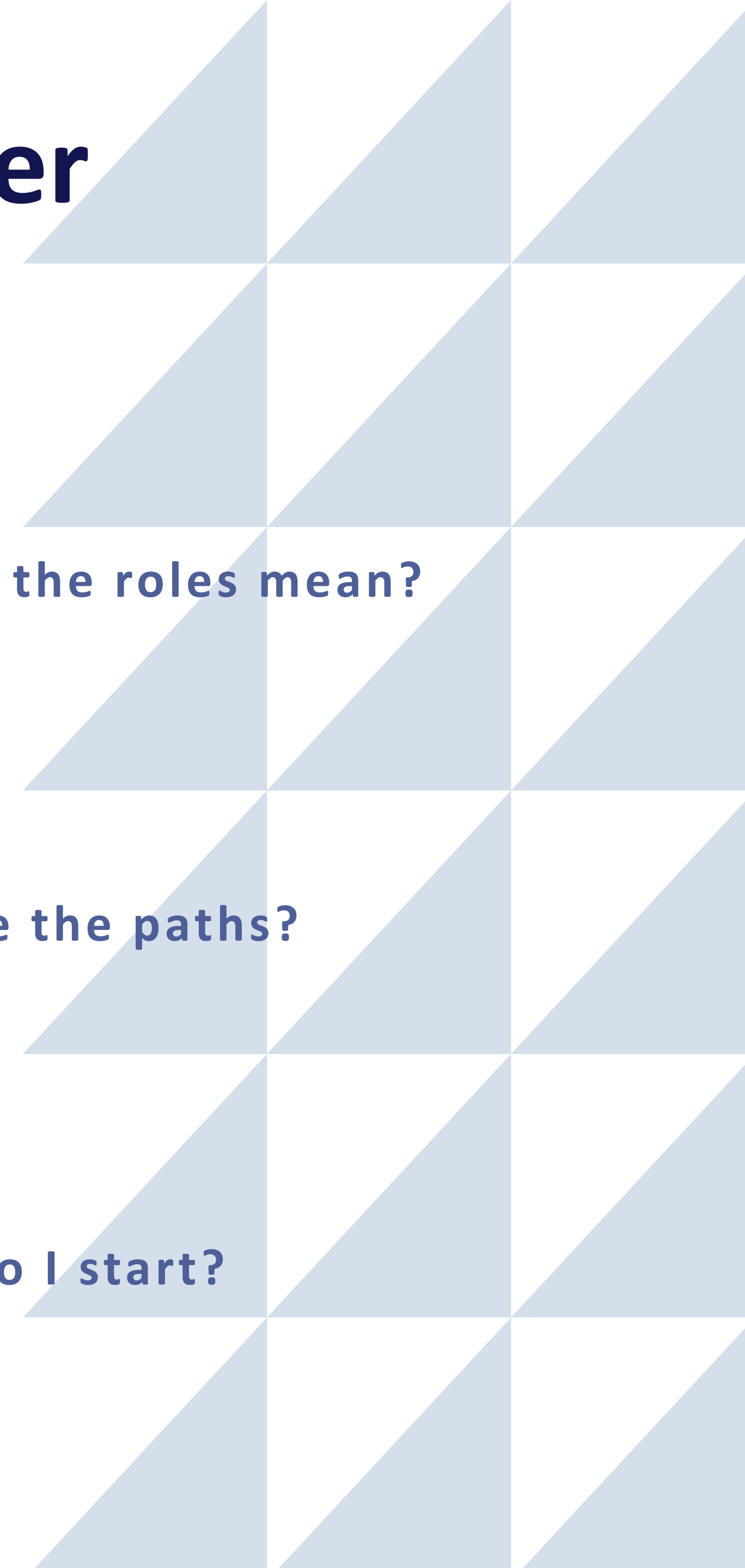
What do the roles mean?

05

What are the paths?

06

Where do I start?





Why is it called Breaking in?

How it was done over a decade ago, isn't something we can keep doing today.

The need is too high, too strong, and we simply need more people than the old way can support.



Neckbeards

Grouchy Computer People (so angry)

- Can be seen as pedantic, overly focused on niche interests, condescending, or antisocial.



The way it used to be (10+ years)



System Administrator

Sysadmins understand operating systems, networks, software applications, and hardware configurations. This foundational knowledge is crucial for understanding attack vectors and vulnerabilities.



Network Engineer

Having deep knowledge about network configurations, protocols, and services allows for better understanding of network-based threats and how to mitigate them.



Software Developer

Developers understand the intricacies of software design, data structures, algorithms, and system architecture, which are vital when evaluating vulnerabilities or designing secure software.



No longer works

We have to change

With the increasing number and sophistication of cyber threats, the demand for skilled cybersecurity professionals has skyrocketed.



Recruiters

Don't really know enough, or understand the industry enough to find the right candidate.

Applicants

Don't understand “the game”, what it takes, and how long it takes to obtain a position.

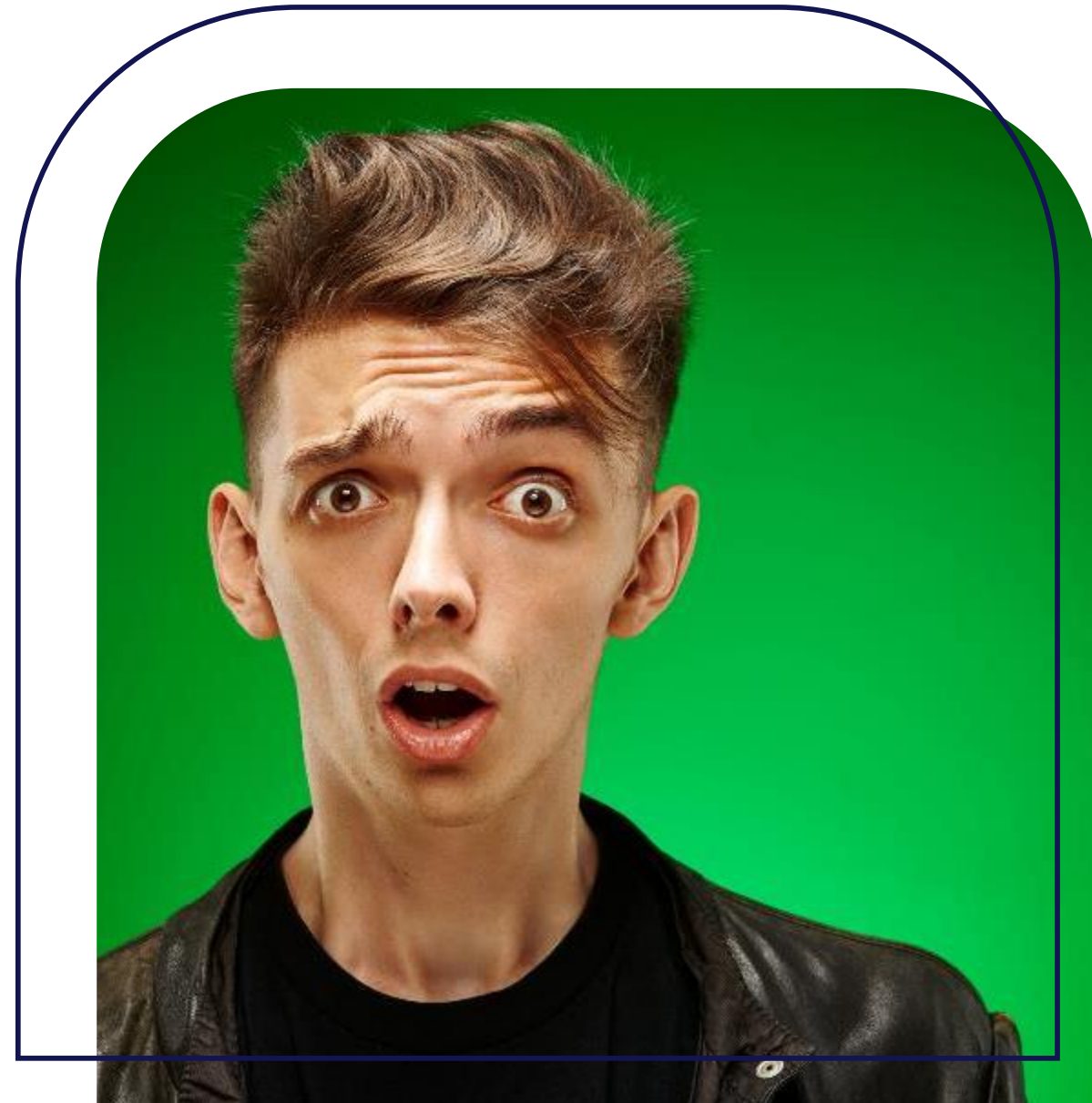


Where are the jobs?

Why are they only looking for EXPERTS!?!>



Looking for a job 'be like'



Confusing

Overwhelming

Vague Job Descriptions

Multiple Tracking Systems

Lack of Feedback



Frustrating

Rejection

Inconsistent Responses

Long and Disparate processes

Impersonal



Painful

Vulnerable

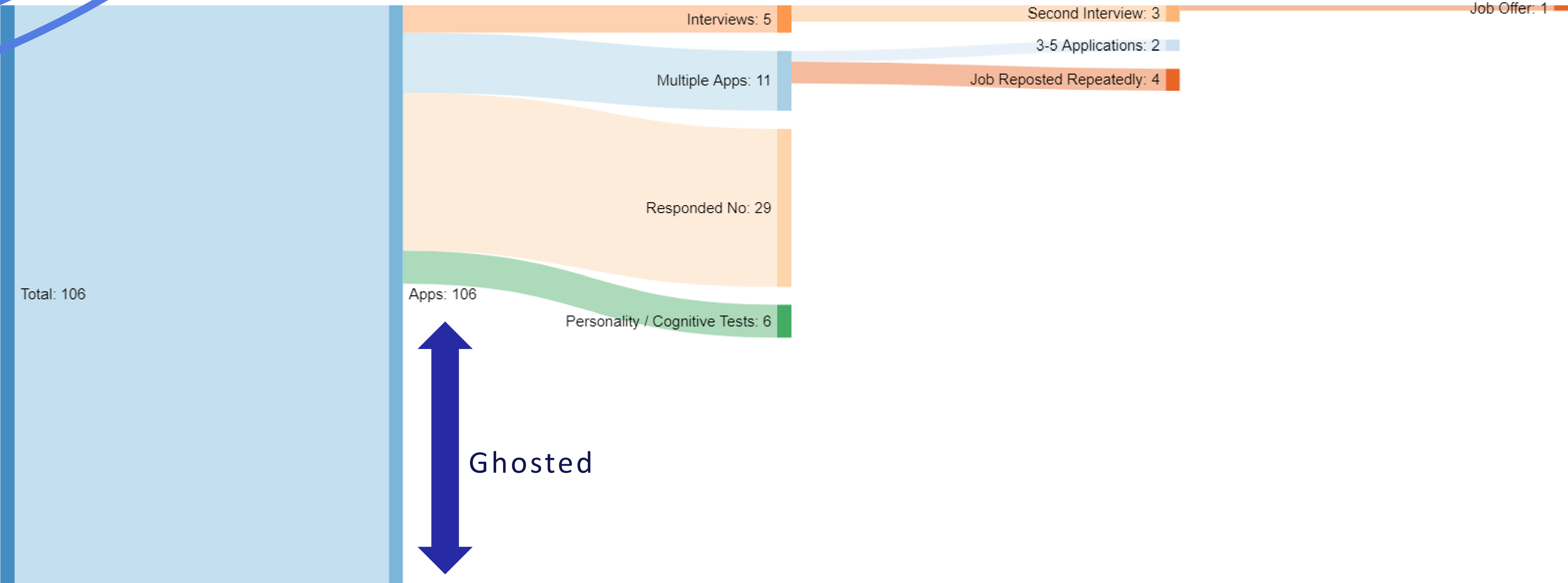
Uncertainty

Identity

Self Worth

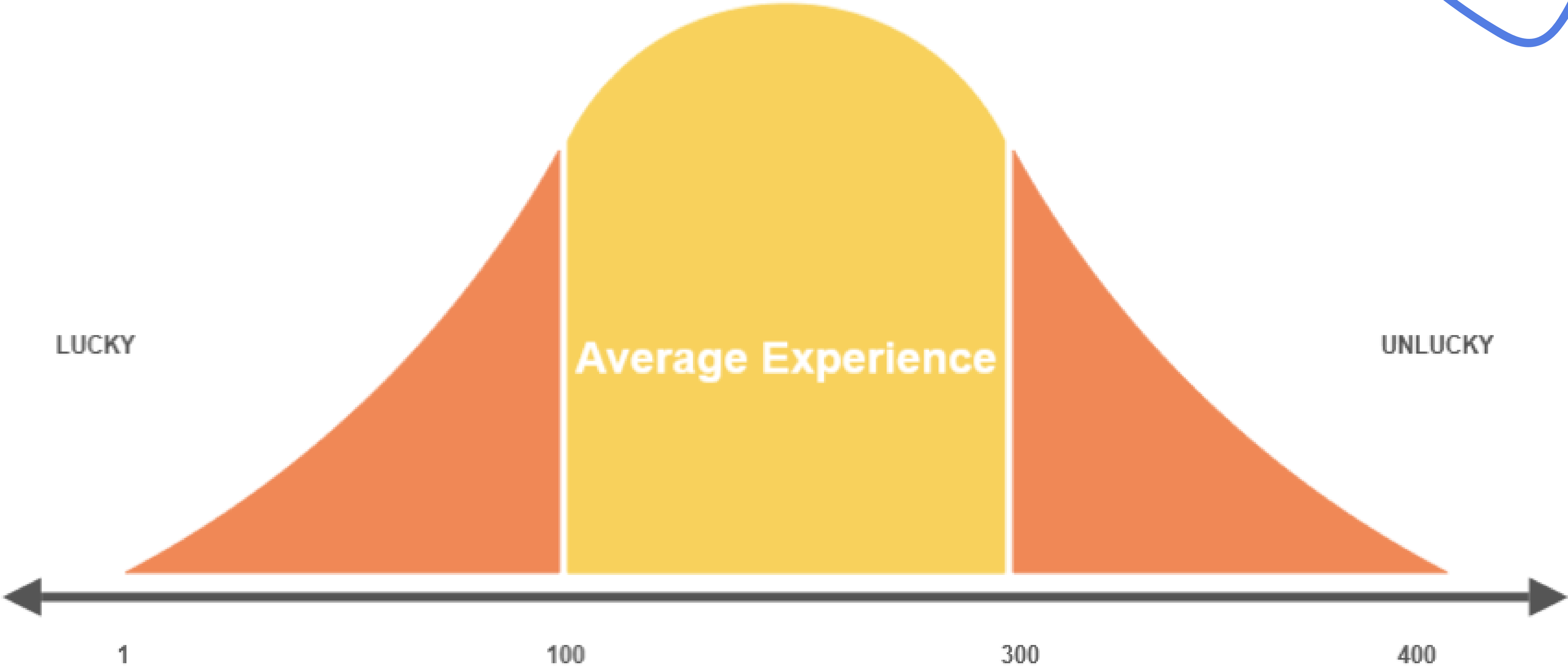
What a easy job hunt look like

Actual Experience

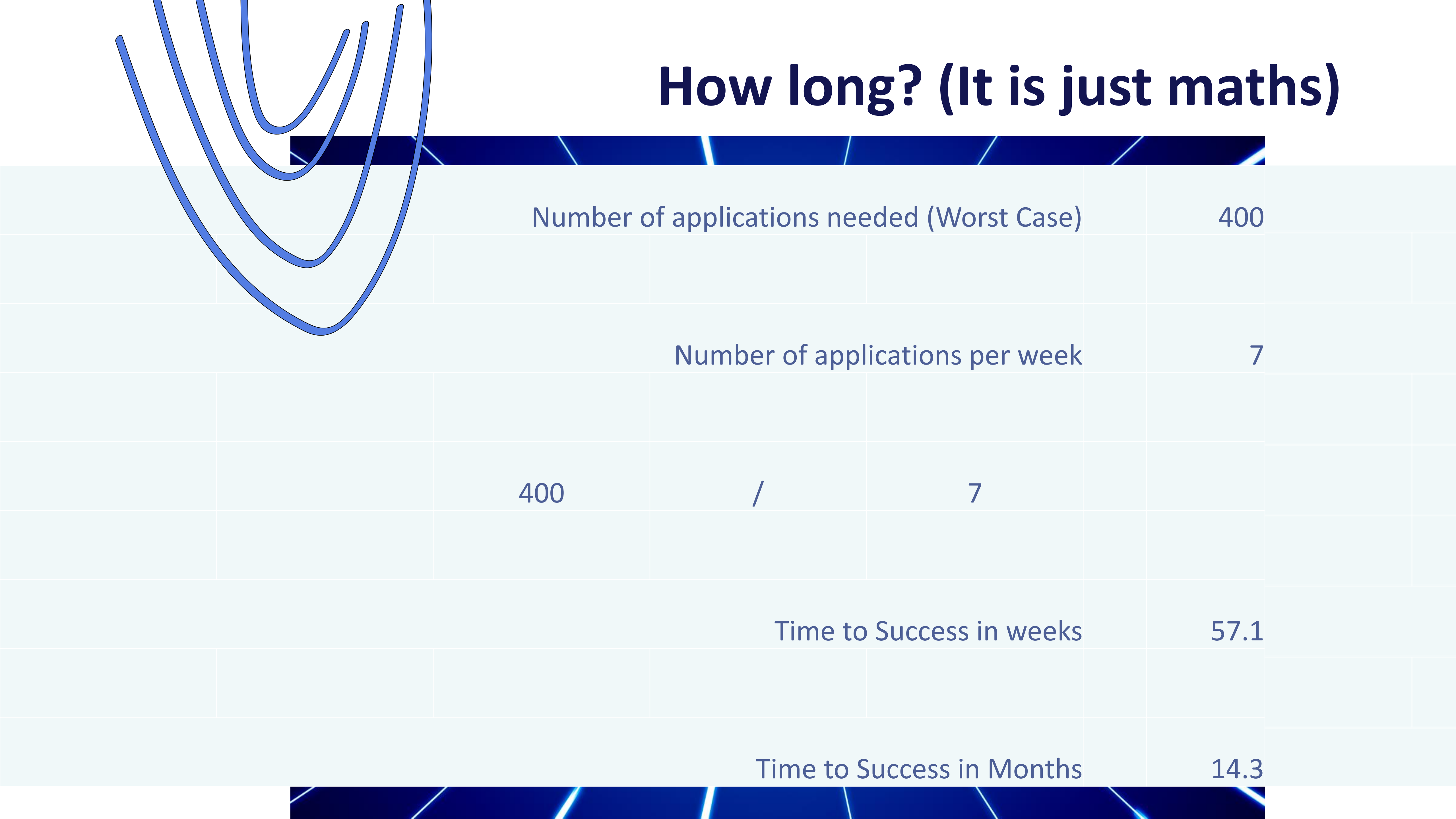


What the full
experience
looks like

Amount of Applications




How long? (It is just maths)



How long? (It is just maths)



A person is walking away from the viewer down a dirt path that stretches into the distance. The path is flanked by wooden fences on both sides. In the background, a bright rainbow arches across the sky, leading the eye towards the horizon. The landscape is hilly and grassy, with a cloudy sky above. In the top left corner, there are several white, concentric, curved lines that resemble a stylized spiral or a series of overlapping loops.

**"A journey of a
thousand miles begins
with a single step."
~Tao Te Ching**

Effort and Time



- Perseverance
- Fierce interest
- Emotional Management
- Understanding the Game
- NOT giving up



In person / Relocate?



Remote?

“A goal without a plan is only a dream.”

- Brian Tracy



Having a Plan

HAVE TARGETS

Identify 1-3 Work Roles
“I don’t care; I’ll take any
job just won’t do.”

CONDUCT RESEARCH

Understand clearly what it takes
to become attractive for those
work roles

PROFESSIONAL ASSOCIATIONS

Identify, select, and join
relevant associations

SOCIAL NETWORKING

Build & Nurture LinkedIn
Attend local cybersecurity
events and build your
social connections

IMPROVE ONESELF

Develop your Skills
Obtain Certifications
Improve your Abilities

HEALTH ENGAGEMENT

Physical Health
Mental Health
Emotional Health

Major Work Roles



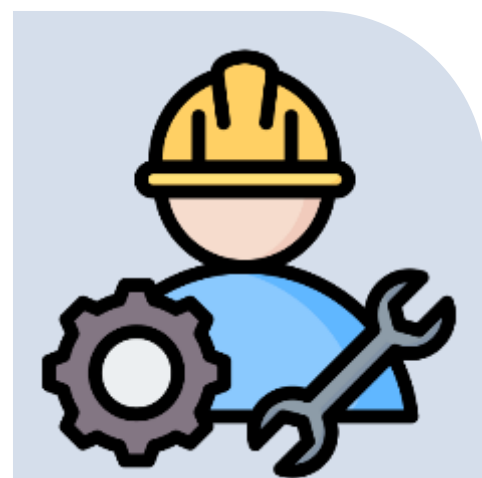
ANALYST

Primarily focused on Detection and Response.



ARCHITECT

Designs the overarching security infrastructure and strategy.



ENGINEER

Designs, implements and maintains security solutions.

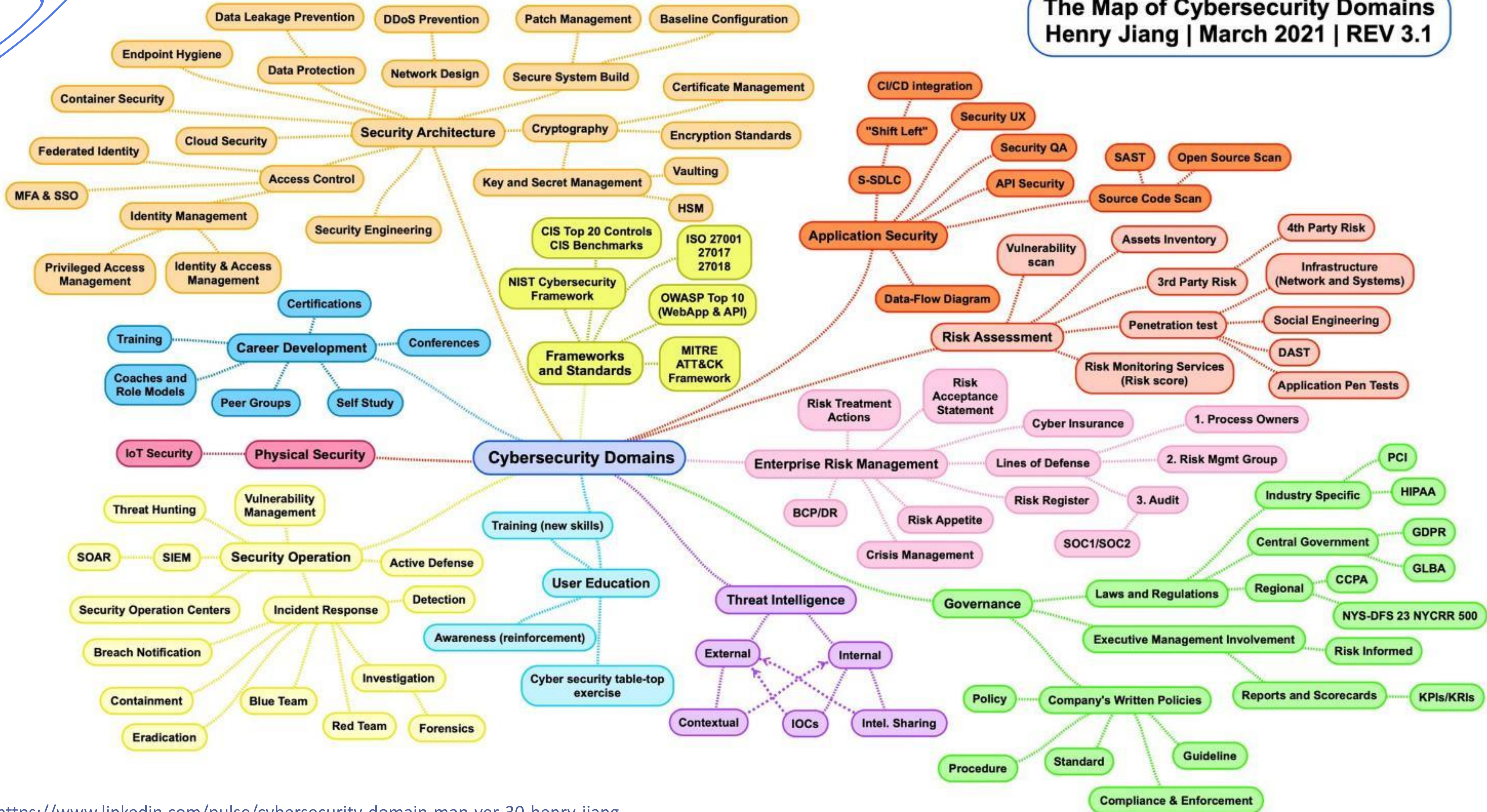


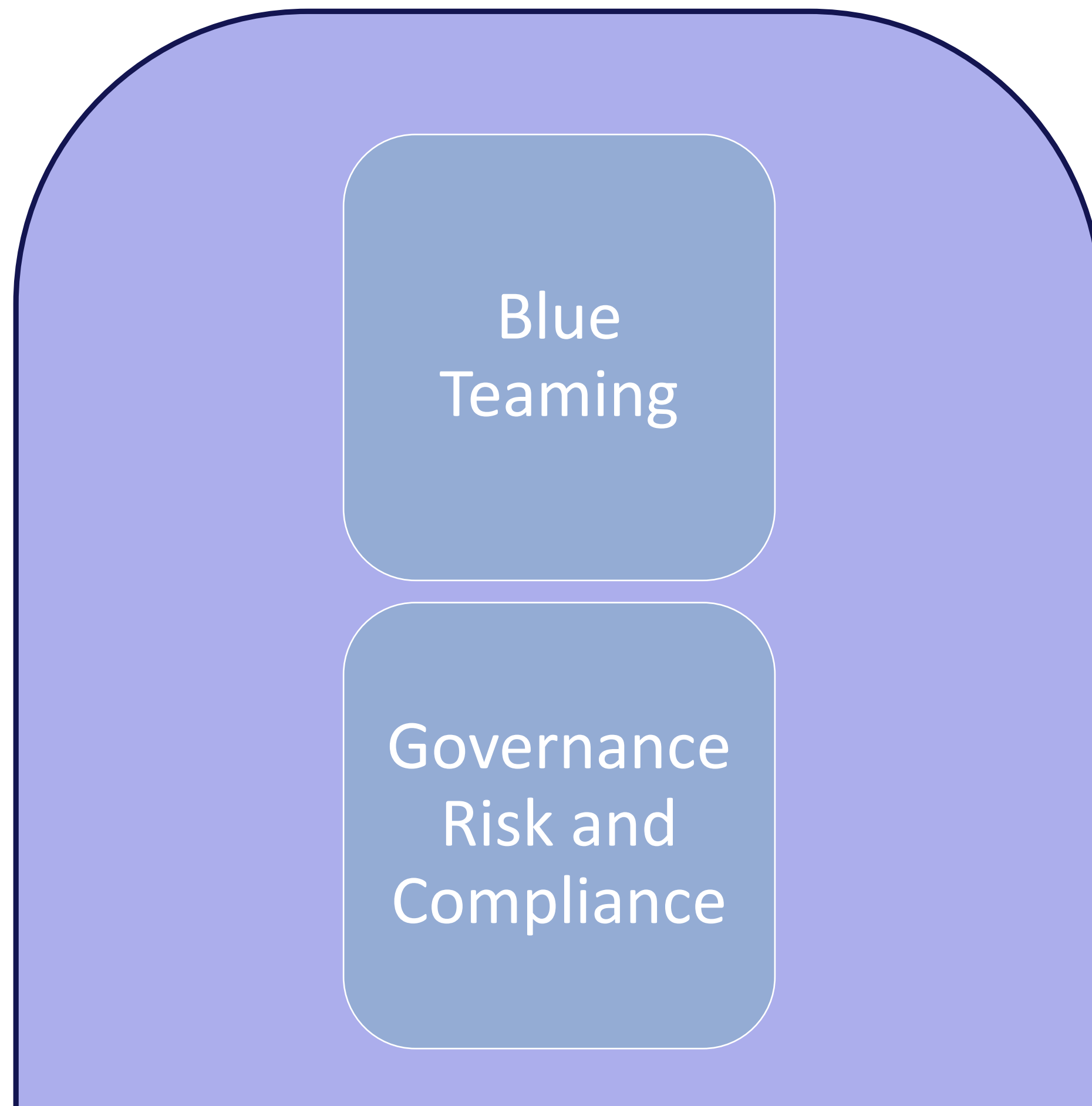
CONSULTANT

Provides expert guidance and advance on cybersecurity to organizations.

The Map of Cybersecurity Domains

Henry Jiang | March 2021 | REV 3.1





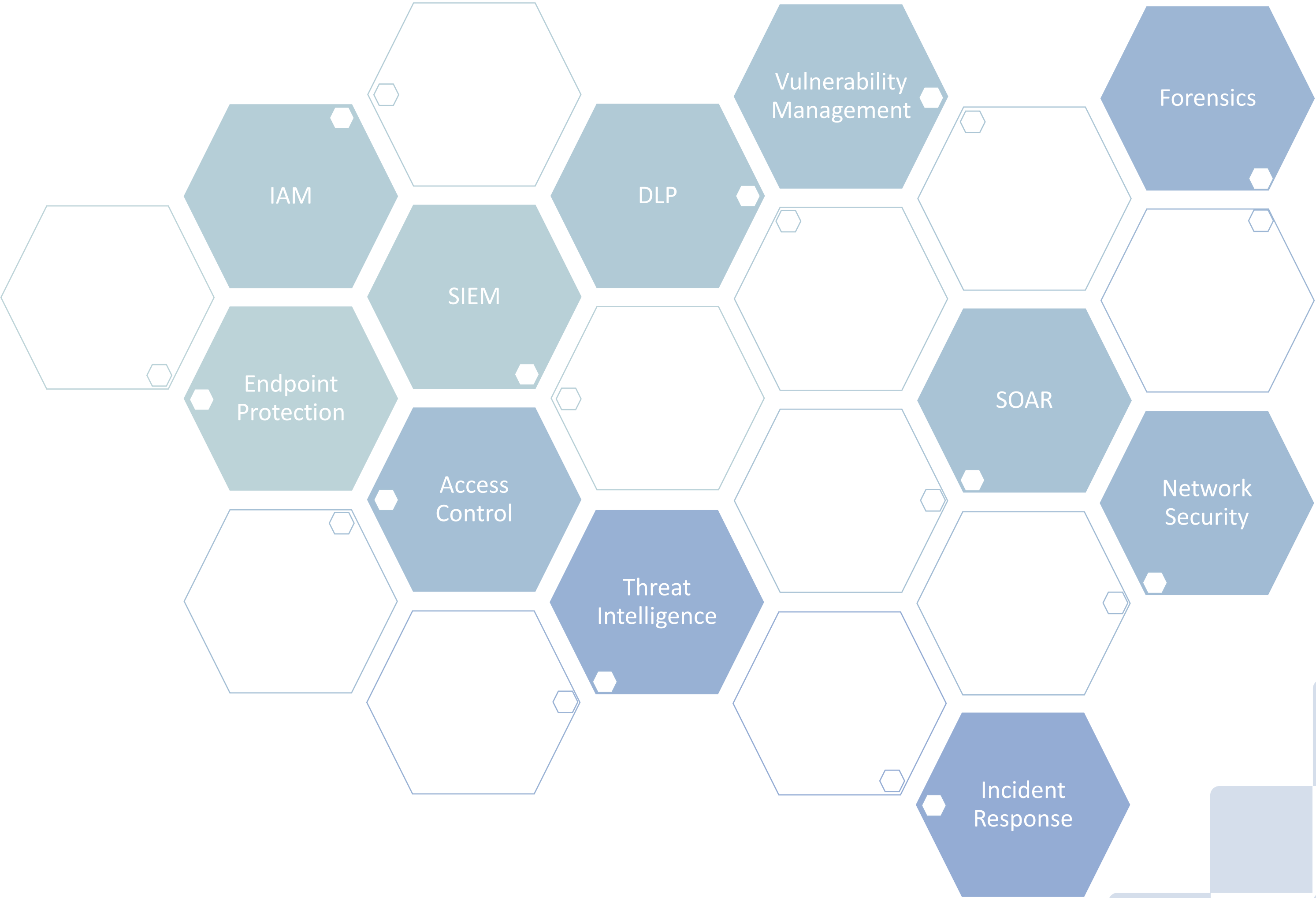
Entry Level Zones

Have to start SOMEWHERE

Most CyberSecurity Roles are not directly accessible from Entry Level.

Entry Level Analyst Roles

- Network Security Analyst
- Information Security Analyst
- CyberSecurity Analyst
- Endpoint Security Analyst
- Cloud Security Analyst
- Threat Intelligence Analyst
- Vulnerability Management Analyst
- Security Compliance Analyst
- SOC Analyst
- Incident Response Analyst
- Digital Forensics Analyst
- Application Security Analyst



Entry Level Engineering Roles

Network Security Engineer

CyberSecurity Engineer

Cloud Security Engineer

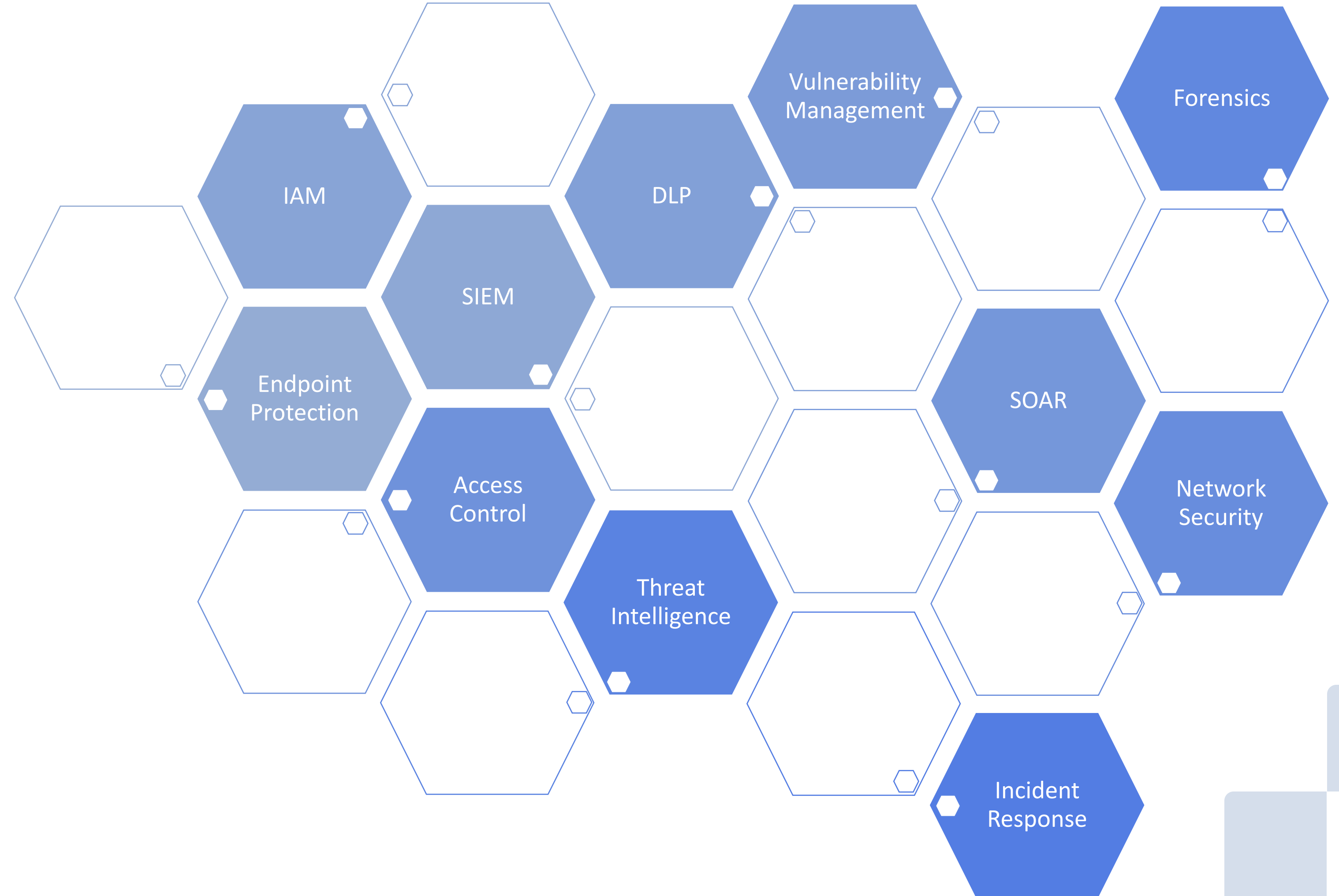
Endpoint Security Engineer

Infrastructure Security Engineer

IAM Security Engineer

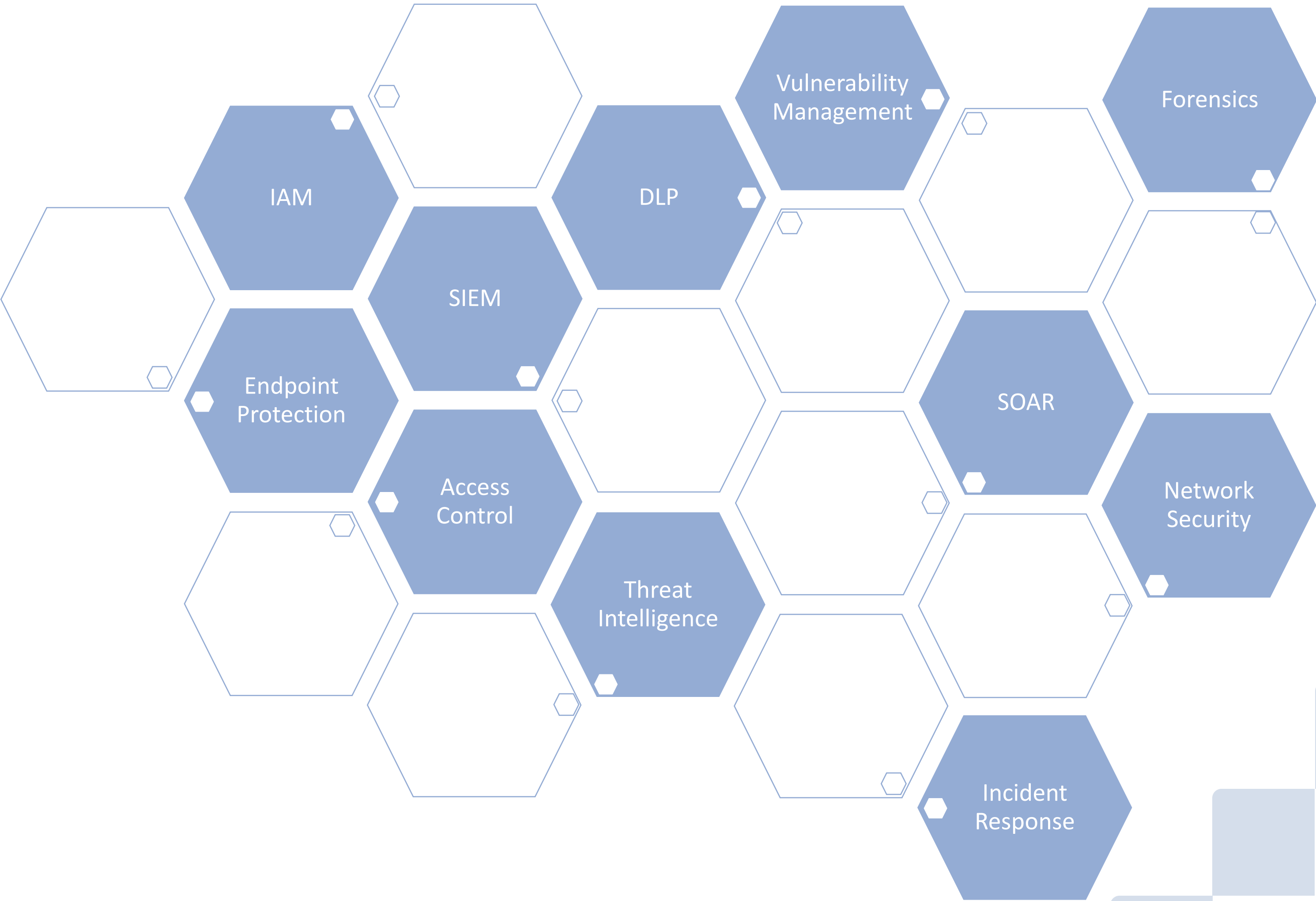
Incident Response Engineer

Application Security Engineer



Entry Level Architecture Roles

- Enterprise Security Architect
- Network Security Architect
- Cloud Security Architect
- Endpoint Security Architect
- IAM Security Architect
- Zero Trust Architect
- Security Solutions Architect
- Data Security Architect



Entry Level Consultant Roles

Information Security Consultant

IAM Security Consultant

Network Security Consultant

Cloud Security Consultant

CyberSecurity Consultant

Incident Response Consultant

Digital Forensics Consultant

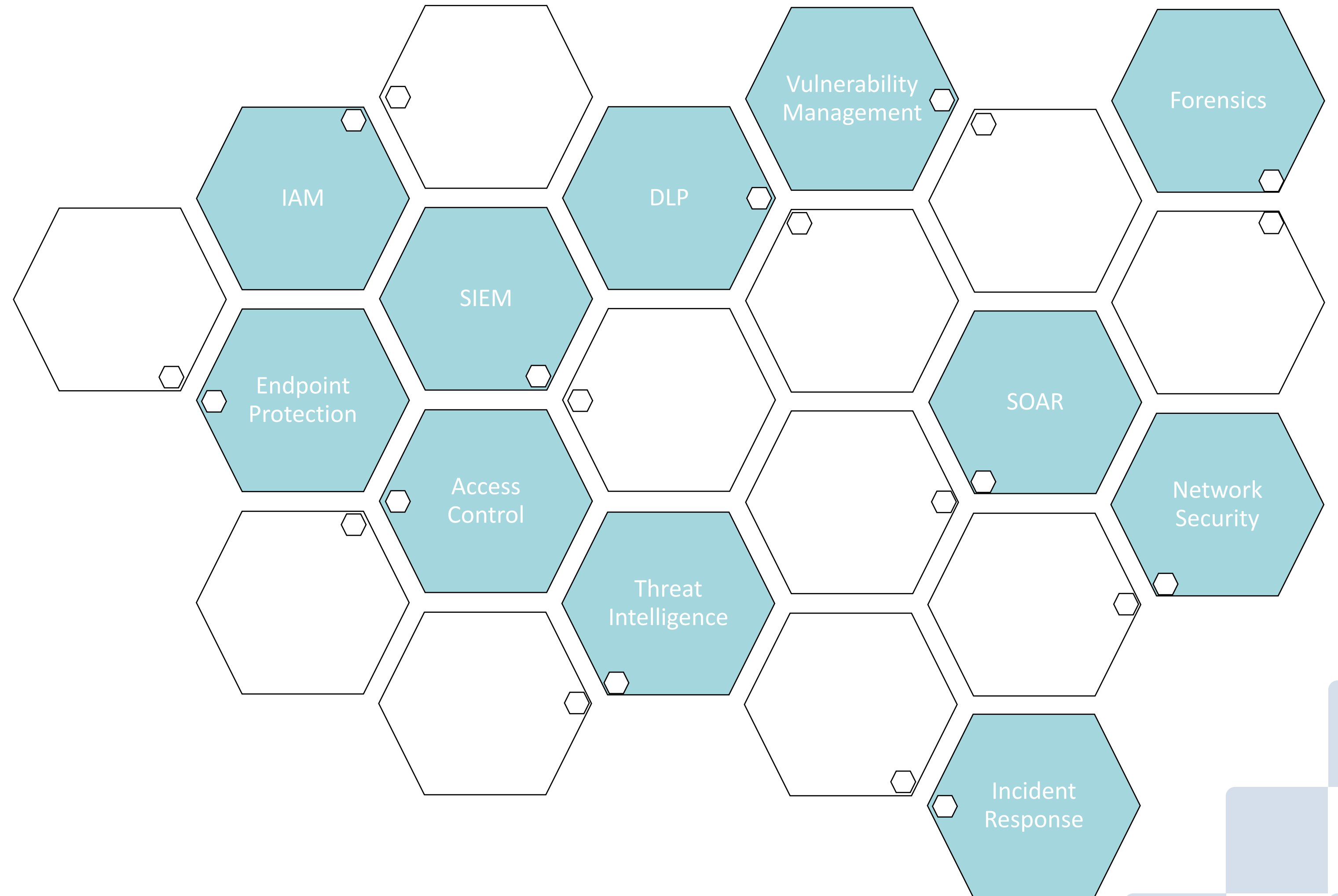
GRC Consultant

Application Security Consultant

IoT Security Consultant

Security Awareness Consultant

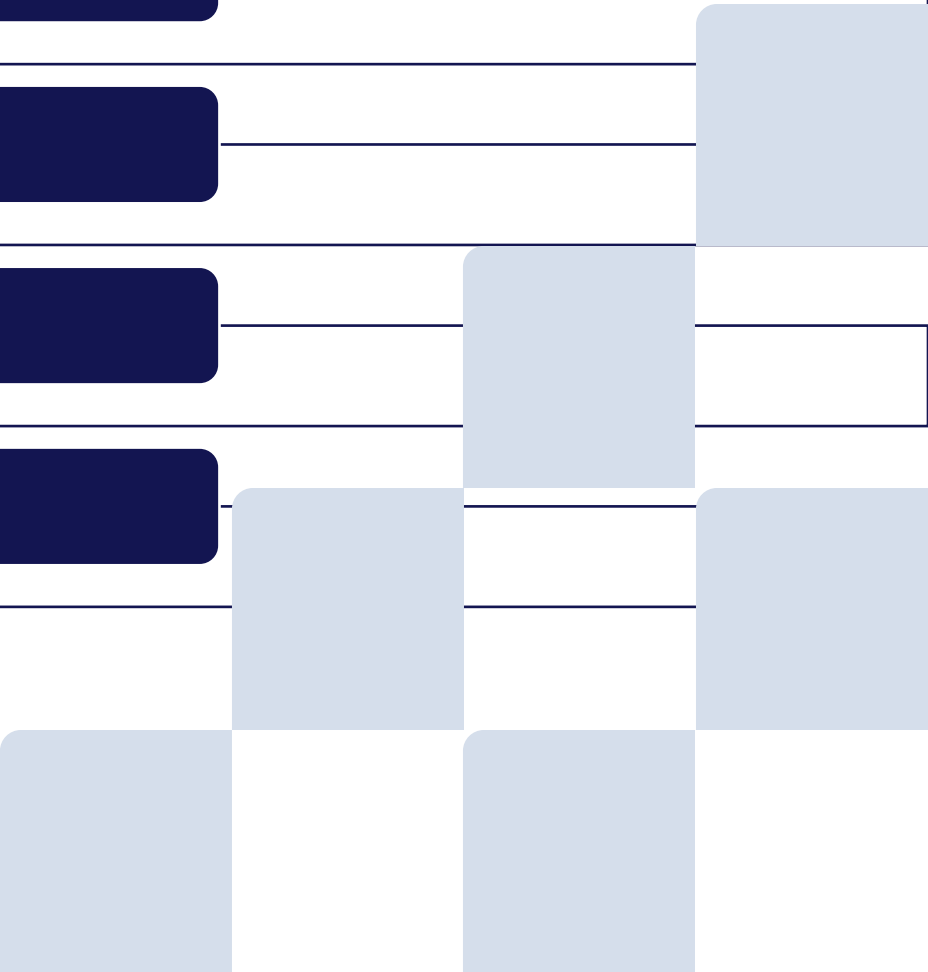
Application Security Consultant



Entry Level GRC Roles

- Governance Analyst
- Compliance Analyst
- 3rd Party Risk Analyst
- Policy & Procedure Analyst
- Privacy Analyst
- ISSO (Information Security Officer)
- Risk Analyst
- Risk Advisory
- Risk Assessment
- Service Delivery Manager
- Technical Account Manager
- Technical Project Manager

- Policies
- Regulations
- Privacy
- Data Security
- Risk Management
- Assessments
- Change Management
- Business Continuity
- Advisory
- Governance
- Disaster Recovery
- Resiliency





It is clear what CISOs want

PICK a ROLE

After years of first-person engagement with CISOs and hiring managers across the cybersecurity industry, they don't want to see your name on every application they get across the company.

PICK A ROLE

The many paths one can take.



SELF TAUGHT

Skill Development
Flexible
Portfolio Building
Social Networking
Problem Solving



EDUCATION

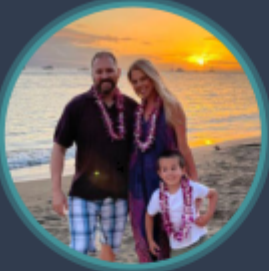
Academia
Boot Camps
Certifications
Badges
Self-Taught



CERTIFICATIONS

CompTIA Sec+
CompTIA Net+
CompTIA CYSA+
Cloud+ / CCSK

Modern Resumes



SKILLS

Windows Systems
Python
Networking
Linux Systems
Teamwork
Project Management
Budget Planning & Management
Metrics-Based Operations Management
Risk Mitigation

INTERESTS

Cybersecurity Operations Management, Leadership, Machine Learning & Automation

Cybersecurity Analyst

Marine Corps Veteran that is passionate about cybersecurity transitioning to a more hands-on technical role.

el

408-

Hi

Ui

linke

a3a6

WORK EXPERIENCE

Technical Recruiter

Palo Alto Networks and Okta

01/2014 - Present

Achievements/Tasks

7 years cybersecurity industry experience. Over 20 years professional experience. Additional information available upon request.

EDUCATION

Cybersecurity

Arapahoe Community College

05/2020 - Present

4.0 GPA

San Jose State University

07/2001 - 12/2003

3.4 GPA

CERTIFICATES

CompTIA Security+

COMP001

CompTIA Network+

COMP001

Project Management Professional

PMP Number 131

PROJECTS

Hashcat Rig (04/2022 - 05/2022)

Converted one of my old Ethereum mining rigs into a Hashcat rig to perform dictionary, brute force, mask, and combinator attacks on password hashes.

OPNSense VMWare Lab (05/2022 - Present)

Created a VMWare lab for testing OPNSense virtual firewalls.

127@gmail.com

314

linked in

3

Cybersecurity Professional

An Innovative technical professional with over 10 years in the Brokerage/Financial industry. Seeking to pivot into another role in cybersecurity to support Risk Management.

WORK EXPERIENCE

Information Security Specialist

U.S. Bank

02/2021 - Present

Achievements/Tasks

Ensure IAM Quality Assurance by confirming access rights and approvals.
Developed and Maintain procedures for systems access and quality assurance.
Performed Weekly, Monthly and Quarterly IAM Reviews to ensure Risk Management Policies are followed.
Assisted with onboarding and decommissioning web based applications.

WIM QA Analyst

Wells Fargo Advisors

04/2019 - 01/2021

Achievements/Tasks

Daily reviewed brokerage customer complaint program practices and resolutions.
Followed FINRA Policy and Risk Management practices.
Ensured complaint resolutions were documented and filed according to FINRA requirements.

Securities Operations Specialist

Wells Fargo Advisors

06/2012 - 04/2019

Achievements/Tasks

Resolved complex Brokerage account transactions.
Provided coaching, training and feedback to new and existing staff.
Acted as Subject Matter Expert for software testing and automation projects.

Technical Support Analyst

Connectria Hosting

09/2008 - 05/2012

Achievements/Tasks

Monitored managed hosting environment in a NOC(Network Operations Center).
Added and removed users in Active Directory.
Added and removed firewall rules for customer environments via Cisco ASDM.
Escalated level 2 and 3 Network and Security Issues to on-call engineers.

EDUCATION

Telecom/Networking Essentials Certificate

Pace University

09/2013 - 09/2014

General Studies

High School

09/2001 - 05/2005

CERTIFICATES

CompTia Security+

(04/2022 - 04/2025)

Candidate ID#COMP001

FINRA Series 7 (General Securities Representative)

(10/2020 - Present)

NOTABLE PROJECTS

Processing Automation SME

(03/2018 - 04/2019)

Subject matter expert on automation project for brokerage transactions.
Provided the documentation matrix to facilitate documentation requirements.
The insight provided influenced executive management and application developers to update policy and procedures. This increased processing productivity and improved brokerage operations SLA KPI's.

SKILLS

IAM

Risk Management

Active Directory

Audit

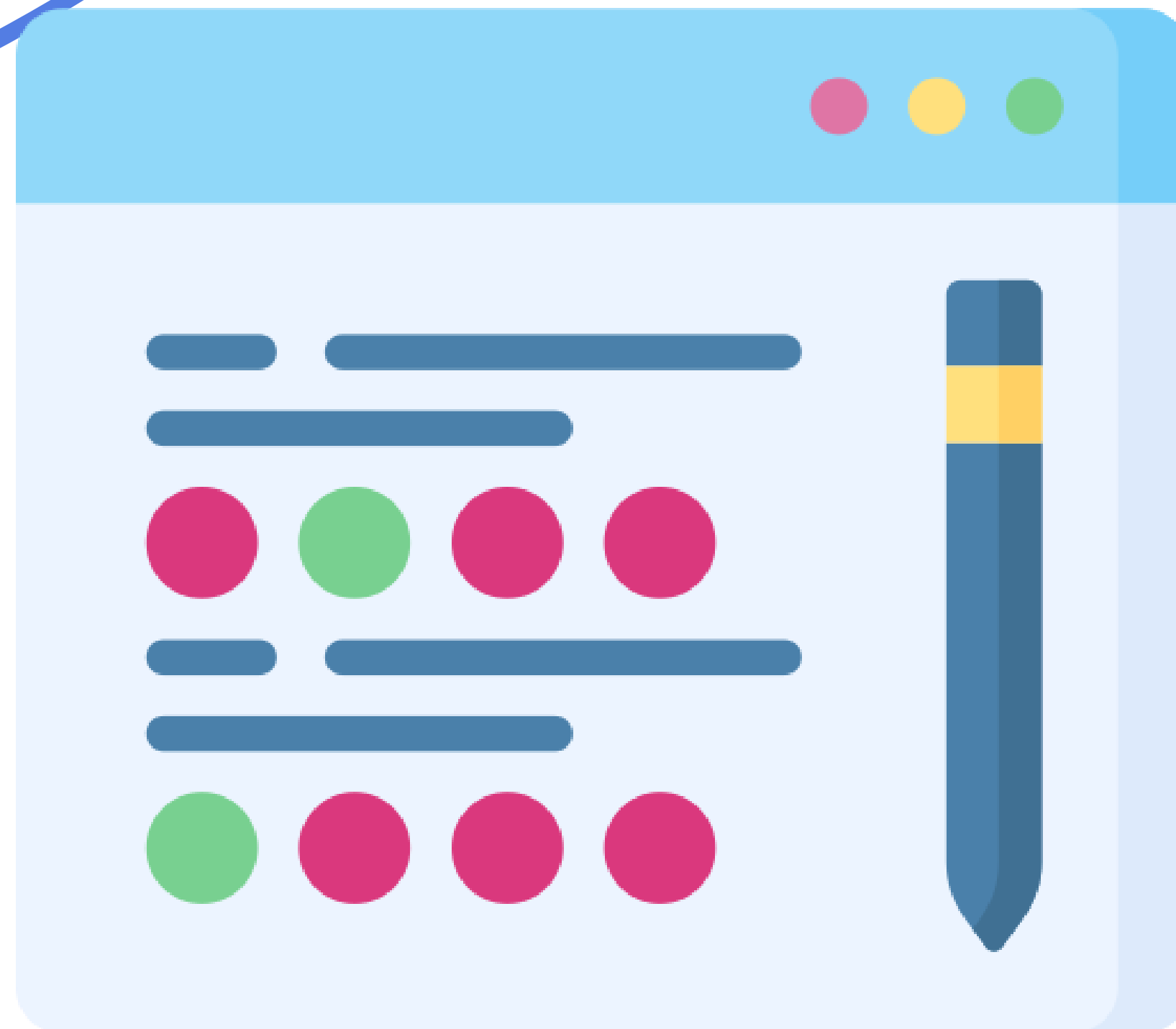
Windows Administration

Security Administration

Regulatory Compliance

Securities Regulation

Psycho metrics are so hot right now



PERSONALITY TEST

Employee Personality Profile

The EPP is a personality assessment that measures twelve traits. Scores for each trait are expressed as a percentile ranking, which reflects how a person scored on that trait relative to other test-takers. There are no "high" or "low" scores on the EPP; rather, people with certain traits tend to be a better fit for certain jobs. The EPP contains a series of job families that assess how good a fit a person's personality is for a given position.

Results Summary

No Job Family Selected

Score Details



Achievement



Assertiveness



Competitiveness



Conscientiousness



Cooperativeness



Extroversion



Managerial



Motivation



Openness



Patience



Self-Confidence



Stress Tolerance

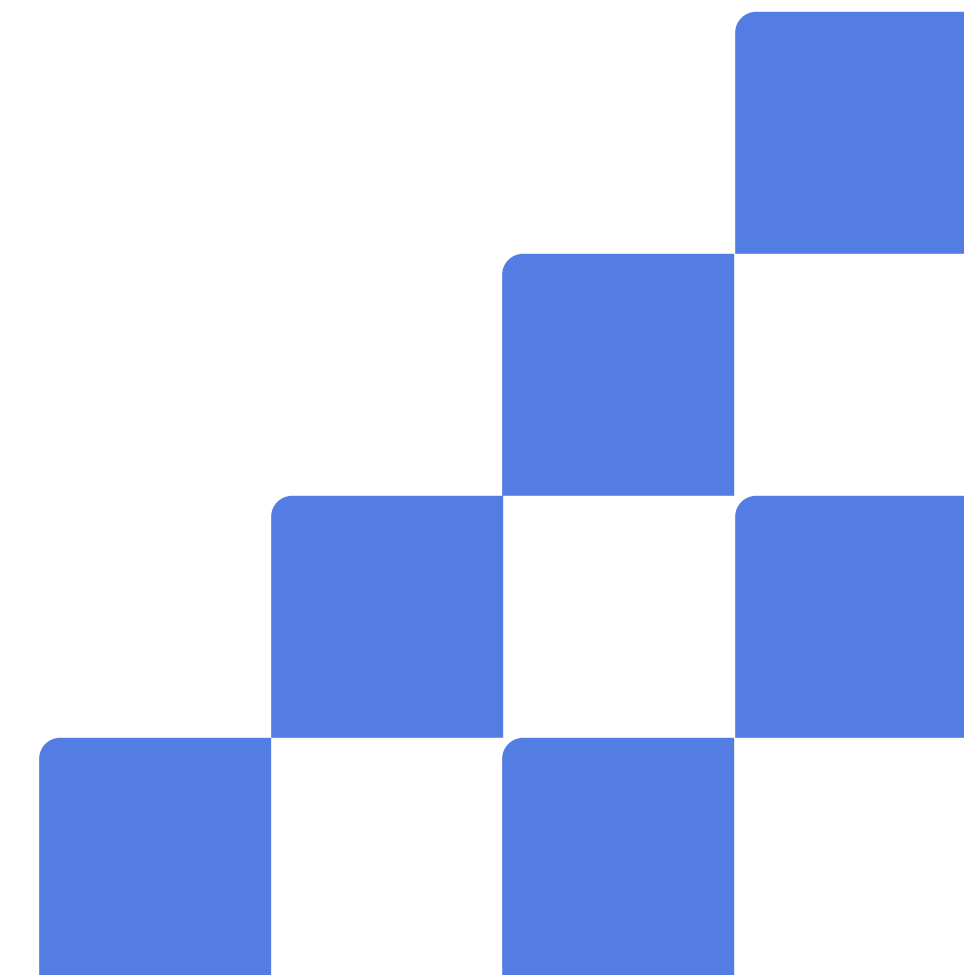




Final Words

**Control what you can
And let go of the rest**

While we cannot control the job market, company hiring timelines, or the preferences of recruiters, we can control our preparation, mindset, and approach.





Slides and Handouts available online at:

<https://github.com/black-tower/Conference2023>

Thank you

Keep a eye out

Building an entire cybersecurity program from zero to HERO over the next few years.

Comprehensive Program

- Economically Viable
- Textbooks
- Videos
- Hands on Labs
- Tutoring & Mentorship