

PROFESSIONAL PATHWAYS TO CYBERSECURITY

A Framework for Career Transition



POTENTIAL PATHWAYS

Cybersecurity faces a persistent talent shortage, a challenge that requires looking beyond traditional career paths. This resource explores unconventional pathways into the field—from nursing, teaching, social work and more—highlighting how skills from these professions align with cybersecurity roles. By broadening our perspective on what qualifies someone for a cybersecurity career, we can build a more resilient and capable workforce. Whether you are switching careers or guiding others, this guide offers a new perspective on where cybersecurity talent can come from.

TECHNOLOGY & DATA MANAGEMENT

LIBRARIAN

Data Organization & Classification:

- Metadata and Taxonomy
- Digital Asset Management
- Information Retrieval

Digital Literacy & Information Ethics:

- Privacy and Confidentiality
- Digital Rights Management
- Online Safety and Security

Research & Analysis:

- Source Evaluation
- Information Literacy
- Research Methodology

PROJECT MANAGEMENT

Planning & Organization:

- Project Scoping
- Timeline and Budget Management
- Task Delegation and Tracking

NURSING

Technology & Data Management:

- Electronic Health Records (EHRs)
- Medical Devices and Technology
- Data Analysis and Interpretation

RISK MANAGEMENT & MITIGATION

TEACHING

Risk Management:

- Safety Protocols
- Behavioral Management
- Emergency Preparedness

PROJECT MANAGEMENT

Risk Assessment & Mitigation:

- Risk Identification
- Risk Analysis
- Risk Response Planning



CRITICAL INCIDENT RESPONSE

NURSING

Critical Incident Response:

- Triage and Prioritization
- Rapid Decision-Making
- Calm Under Pressure

Following Protocols & Procedures

- Attention to Detail
- Documentation and Reporting
- Compliance and Regulations



CRISIS MANAGEMENT & DE-ESCALATION

HUMAN RESOURCES

Conflict Resolution:

- Workplace Investigations
- Mediation and Negotiation
- Disciplinary Action

Policy Development & Enforcement:

- Security Policies
- Compliance and Audits
- Performance Management

SOCIAL WORK

Crisis Management & De-escalation:

- Conflict Resolution
- Emotional Intelligence
- Trauma-Informed Care



COMMUNICATION, EMPATHY & EXPLANATION

TEACHING

Communication & Explanation:

- Curriculum Development
- Simplifying Technical Concepts
- Active Listening and Feedback

NURSING

Patient Care & Communication:

- Empathy and Communication
- Education and Awareness
- Collaboration and Teamwork

PROJECT MANAGEMENT

Communication & Collaboration:

- Stakeholder Management
- Team Building
- Documentation and Reporting

SOCIAL WORK

Empathy & Understanding:

- Human Behavior
- Vulnerability Assessment
- Building Trust and Rapport

HUMAN RESOURCES

Training & Awareness:

- Onboarding and Training
- Communication and Engagement
- Learning Management Systems



ADAPTIVE PROBLEM SOLVING

TEACHING

Adaptability & Problem-Solving:

- Classroom Management
- Creative Problem-Solving
- Continuous Learning



ADVOCACY & SUPPORT

SOCIAL WORK

Advocacy & Support:

- Empowerment
- Community Outreach
- Ethical Considerations



TOGETHER, WE THRIVE!

The pathways framework actions were created in partnership with Jackie McGuire, Founder of **jackieinsecurity** - jackieinsecurity.com

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TECHNOLOGY AND DATA MANAGEMENT

This category involves the **proficient use of specialized digital systems** and the **principles of organizing and safeguarding data**. This includes hands-on skills like operating electronic patient charting systems to maintain accurate health records and managing large digital databases and asset libraries. It extends to the architectural level of organizing and classifying information with metadata so it can be retrieved efficiently. A key component is upholding information ethics, which means ensuring data privacy, managing confidential information responsibly, and promoting digital literacy among users.

RISK MANAGEMENT & MITIGATION

This is the proactive process of **identifying, analyzing, and neutralizing potential threats before they can cause harm or disruption**. This involves a forward-looking assessment to identify potential risks—whether to physical safety on a campus, the budget and timeline of a project, or workplace harmony. Once identified, risks are analyzed for their likelihood and potential impact, which then informs the development of specific mitigation plans, preventative policies, and procedural safeguards designed to prevent the negative event from ever occurring.

CRITICAL INCIDENT RESPONSE

This skill set focuses on **effective action at the immediate point of a critical event**. It is most clearly defined by the practice of triage: the ability to rapidly assess the severity of a situation, prioritize multiple competing needs based on urgency, and make crucial, high-stakes decisions under significant pressure. This involves following established emergency protocols to ensure a response is not only fast but also systematic and effective in stabilizing the situation and allocating resources where they are most needed.

CRISIS MANAGEMENT & DE-ESCALATION

Where risk management is proactive, crisis management is a **reactive skill set deployed once a situation has already become volatile or unstable**. It is the ability to step into a high-stress, often emotionally charged environment and bring it to a safer state. This requires specialized de-escalation techniques to calm agitated individuals and mediate conflicts. The goal is to manage the immediate crisis effectively, prevent further escalation, and guide the situation toward a stable and peaceful resolution.

COMMUNICATION, EMPATHY & EXPLANATION

This represents a **multi-faceted approach to interaction, beginning with empathy**—the ability to understand and share the feelings of another. This allows for more effective patient, client, or stakeholder communication, especially in sensitive situations. It then builds into the skill of explanation, which is the ability to break down complex, technical, or nuanced topics and communicate them with clarity to diverse audiences. This fosters collaboration within teams, ensures alignment with stakeholders, and builds the trust necessary for successful outcomes.

ADAPTIVE PROBLEM SOLVING

This category focuses on **mental flexibility and resourcefulness when faced with unexpected challenges**. It is the skill of "thinking on your feet" when a situation deviates from the plan. This involves quickly assessing a changed environment, diagnosing the new problem, and improvising a creative and effective solution in real-time. Examples include a teacher adjusting a lesson plan on the fly to address student confusion or a project manager finding a new path forward when a critical resource suddenly becomes unavailable.

ADVOCACY & SUPPORT

This skill set is centered on **actively supporting individuals and representing their interests**. It begins with understanding a person's specific needs and challenges. From there, it involves acting as an advocate by navigating complex bureaucratic or social systems on their behalf to ensure they receive the help they are entitled to. A key part of this is connecting individuals with the correct external resources, support systems, and aid, thereby empowering them and facilitating their well-being and success.

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