



Cyber Up!

Digital Forensics & Incident Response

Tobi West
Principal Investigator
Coastline College

NSF Grant Award #1800999

Agenda

- Background on Coastline College
- Need for Incident Response Professionals
- Overview
- Advisory Board
- Approach
- Curriculum Development
- Program Development
- Faculty & College Support



Current Program

Developing Cybersecurity Talent

CAE-CDE
since 2014



Better Prepared
for Industry
Roles in
Cybersecurity &
Computer
Networking



Pathways to Success

K-12 to Coastline to University



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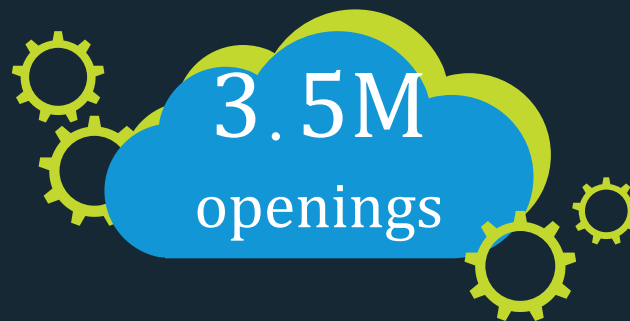
CYBERSECURITY BUSINESS REPORT

By [Steve Morgan](#), CSD | JUN 8, 2017 7:09 AM PT

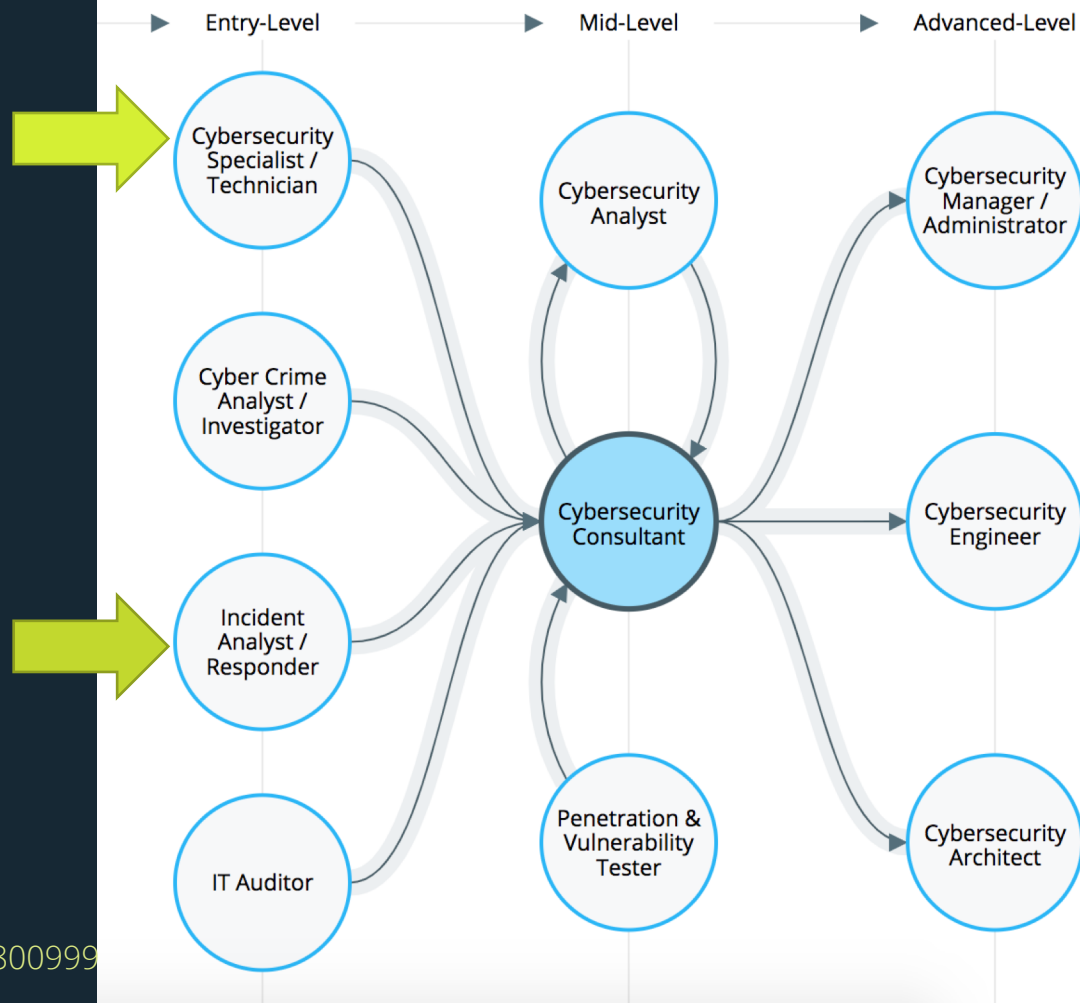
NEWS

Cybersecurity labor crunch to hit 3.5 million unfilled jobs by 2021

The cyber crime epidemic is expected to triple the number of open positions over the next five years



Core Cybersecurity Roles 1



Incident Analyst / Responder

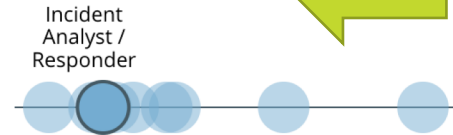
AVERAGE SALARY ⓘ

\$99,000



TOTAL JOB OPENINGS ⓘ

6,605



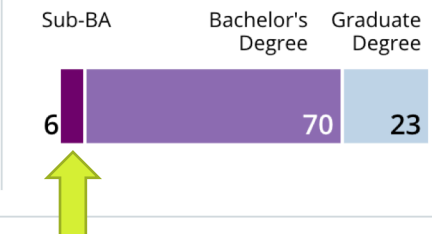
COMMON JOB TITLES ⓘ

- Incident Analyst
- Information Security Project Manager
- Security Project Manager
- Senior Analyst, Information Security
- Cybersecurity Consultant - Incident Response And Forensics

COMMON NICE CYBERSECURITY WORKFORCE FRAMEWORK CATEGORIES ⓘ

- Protect and Defend ▼
- Cyber Defense Analysis
 - Cyber Defense Infrastructure Support
 - Incident Response
 - Vulnerability Assessment and Management

REQUESTED EDUCATION (%) ⓘ



TOP CERTIFICATIONS REQUESTED ⓘ

- GIAC
- CISSP
- CISM
- GIAC Certified Incident Handler (GCIH)
- CISA

TOP SKILLS REQUESTED ⓘ

- 1 Information Security
- 2 Project Management
- 3 Information Systems
- 4 Linux
- 5 Network Security
- 6 Intrusion detection
- 7 UNIX
- 8 Security Operations
- 9 Vulnerability assessment

Overview

- October 2018 through September 2021
- Work with Advisory Board of industry professionals
- Fully develop 6 courses
- Write a Certificate and an AS degree



Adapt & Adopt

- NICE Workforce Framework – Protect & Defend
- Research textbooks
- Research industry certifications
- Other Programs – Daytona State & Union County & Champlain College



Details

- Platforms
 - Canvas – LMS
 - Netlab – remote lab access
- Addition of co-PIs
 - Anna Carlin, Fullerton College
 - Dr. Nancy Jones, Coastline College
 - Dr. Aeron Zentner, Coastline College
- Addition of External Evaluator



Proposed Course Schedule

- Spring 2019 – Cybersecurity Analyst+
- Summer 2019 – Intro to Network Forensics, Incident Response, & Threat Hunting
- Fall 2019 – Advanced Digital Forensics
- Spring 2020 – Legal Aspects of Cyber Crime
- Fall 2020 – ~~Reverse_Engineering_Malware_Malware_Analysis_Tools~~
- Spring 2021 – Applied Cyber Forensics Capstone



Proposed Advisories

- 1 Introduction to Security
- 2 Linux+
- 3 Introduction to Python
- 4 Introduction to Computer Forensics
- 5 Ethical Hacking



Program Planning & Initiatives

CST Program Growth

Cyber Up! DFIR



NSF grant for development of
Digital Forensics & Incident
Response degree

8 program courses, career-
readiness workshops, industry
relationships

Cybersecurity Apprenticeship Program



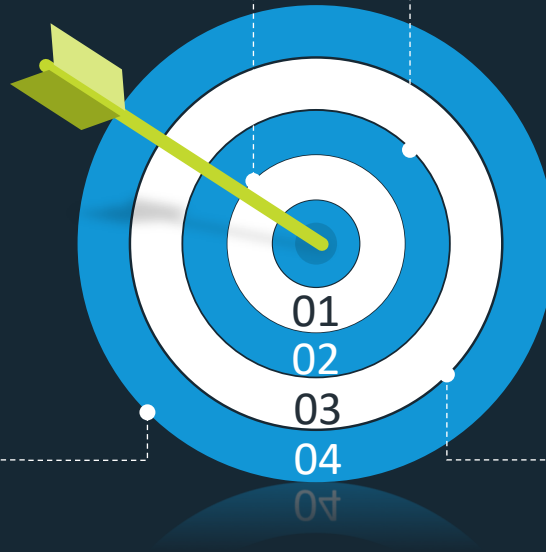
Palo Alto Regional Academy

Develop courses and run a regional
academy



Data Analytics

Develop a degree and courses with
Business Department



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Contact Info



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COASTLINE COLLEGE



CA CYBERSECURITY
APPRENTICESHIP PROGRAM



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