NICE Webinar - Beyond Technical Skills - The Human Element of a Cyber Career

May 13, 2026

Notes and Reminders

Attendees are muted: Due to the number of attendees, all participant microphones and cameras are automatically muted.

Webinar Recording: This webinar and the engagement tools will be recorded. An archive will be available at www.nist.gov/nice/webinars.

Submitting Questions: Please enter questions and comments for presenters in the Zoom for Government Q&A. Chat has been disabled for this event.

CE/CPE credits: The CEU form will be available on the event page after the event.

NIST | NICE

Daniel Eliot

National Institute of Standards and Technology

Jeff Welgan

Skillrex

Dr. Qianqian Zhang

Rowan University

Melissa Swartz

ISACA

NIST NICE

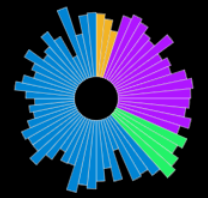
Workforce Data on “Power Skills”

Cybersecurity’s Secret Weapon

Cyber Workforce. Delivered.

“Power Skills” Have Become the Performance Ceiling

Power skills are the performance ceiling.
Across all functions, the expectation for professional capability (53.9) significantly outpaces technical requirements (38.0).



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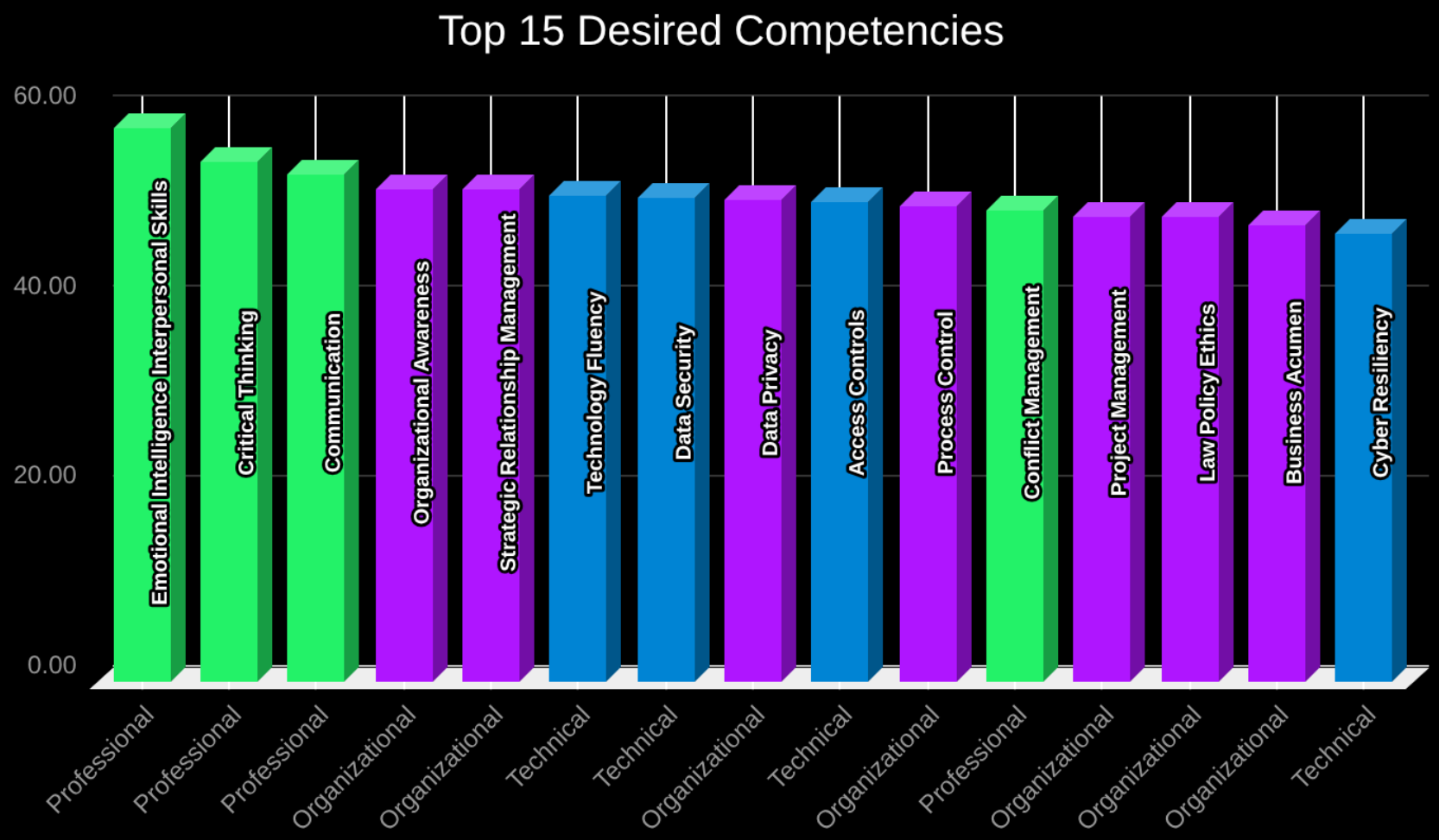
“Power Skills” are Cybersecurity’s ‘Secret Weapon’

The "Core Trio" of Resilience.
The three most demanded skills across the entire workforce are Emotional Intelligence (58.2), Critical Thinking (54.7), and Communication (53.3).

Technical skill is the baseline; EQ is the differentiator.
The highest-rated technical expectation (Technology Fluency at 51.0) still lags behind the enterprise demand for professional maturity.



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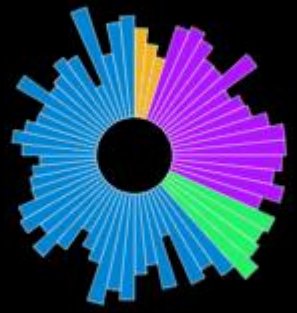
The Seniority “Power Skills” Multiplier

Junior

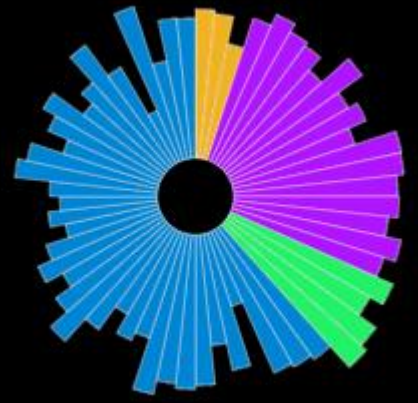
Competency	Junior
Emotional Intelligence Interpersonal Skills	36.04
Technology Fluency	33.96
Data Security	32.98
Access Controls	32.76
Critical Thinking	32.01
Organizational Awareness	31.74
Communication	31.66
Strategic Relationship Management	30.33
Process Control	29.69
Data Privacy	29.65

Mid-Level



Competency	Mid
Emotional Intelligence Interpersonal Skills	50.47
Technology Fluency	46.55
Critical Thinking	45.71
Communication	45.54
Strategic Relationship Management	45.17
Data Security	45.01
Organizational Awareness	44.71
Process Control	44.69
Data Privacy	44.66
Conflict Management	43.77

Senior



Competency	Senior
Emotional Intelligence Interpersonal Skills	75.70
Critical Thinking	73.10
Communication	70.37
Law Policy Ethics	68.23
Strategic Relationship Management	67.98
Organizational Awareness	67.74
Data Privacy	66.31
Project Management	65.39
Process Control	64.88
Data Security	64.86

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Monday Morning Action Plan

01

Identifying the "Power" Blind Spot

Certs validate the floor; performance data reveals the ceiling.

Passing a test isn't the same as executing under pressure.

02

Prioritize Work-Based Learning

Soft skills aren't taught; they're forged in high-pressure feedback loops.

Theory is a baseline—real-world experience builds the interpersonal muscle.

03

Architect Your Workforce with Precision

Stop hiring for boxes on an org chart. Map the functional drivers instead.

Identify the "T-shaped" operators who bridge technical silos and business risk.

04

Optimize AI-Human Synergy

Use AI to clear the technical noise so humans can focus on the outcome.

AI handles the data; human leadership handles the "so what?"

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Let’s Connect.

Q&A

Beyond Technical Skills: Building the Human Side of the Cybersecurity Workforce

Lessons from a NIST-Supported Training Program

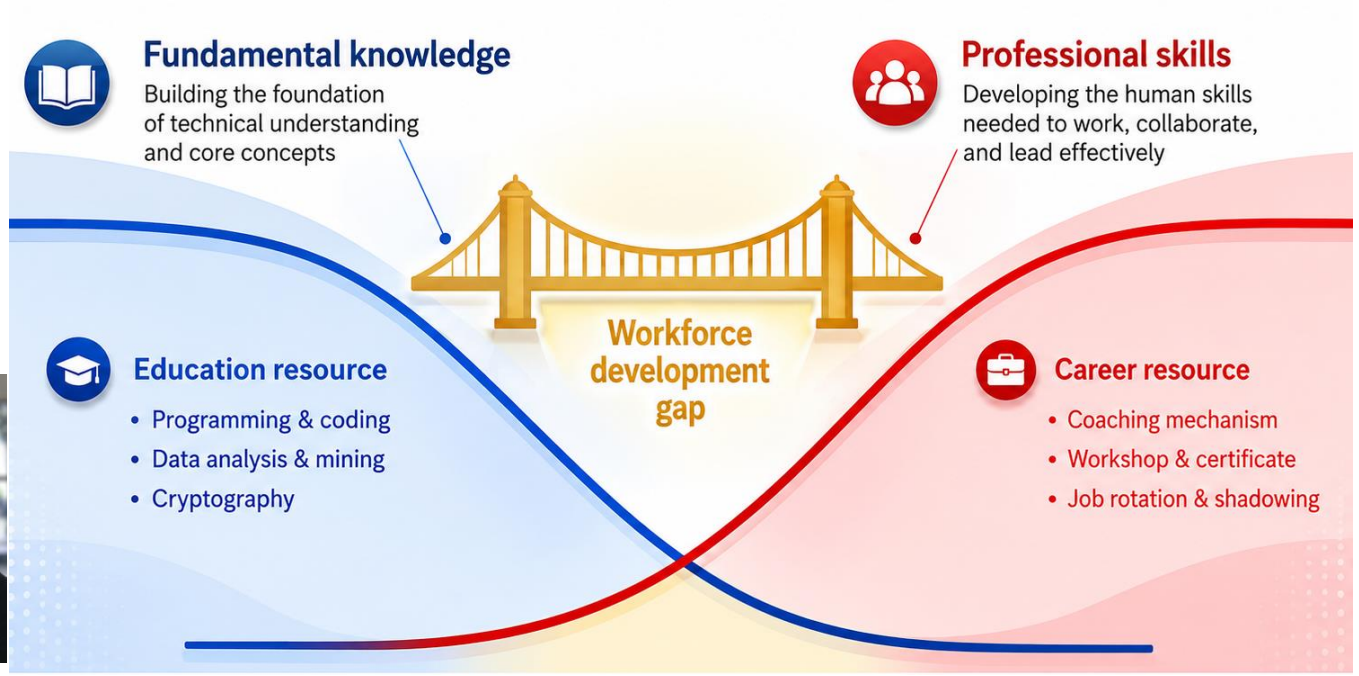
Qianqian Zhang
Assistant Professor
Department of Electrical and Computer Engineering
Rowan University

This work was supported under the award 70NANB25H169 from U.S. Department of Commerce, National Institute of Standards and Technology.

Workforce development program

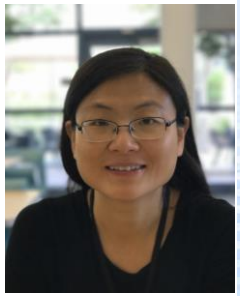
- Bridging the Gap: Comprehensive Cybersecurity and Career Readiness Training for Critical Infrastructure in the NJ/NY Region

Qianqian Zhang
Rowan
Assistant Professor



Jia Mi
Stevens
Assistant Professor

Ying Wang
Stevens
Associate Professor



Sean Ryan
ABS
Senior consultant

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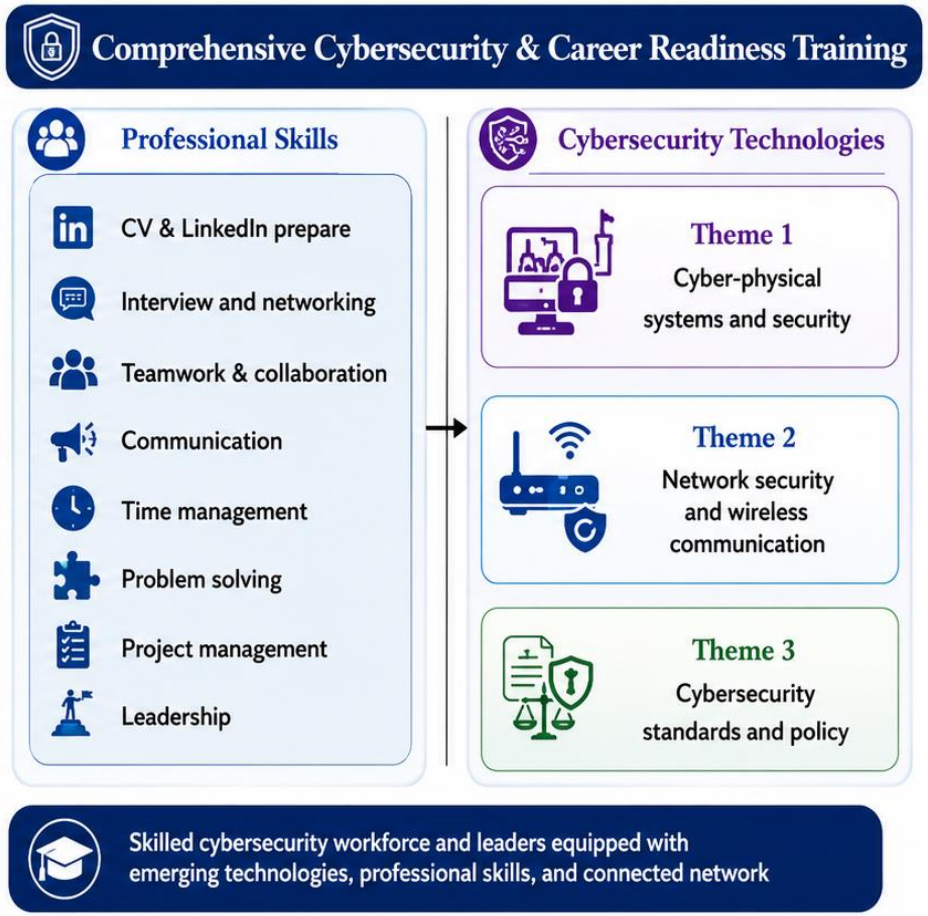
NICE regional alliances and multistakeholder partnerships

Cybersecurity workforce development



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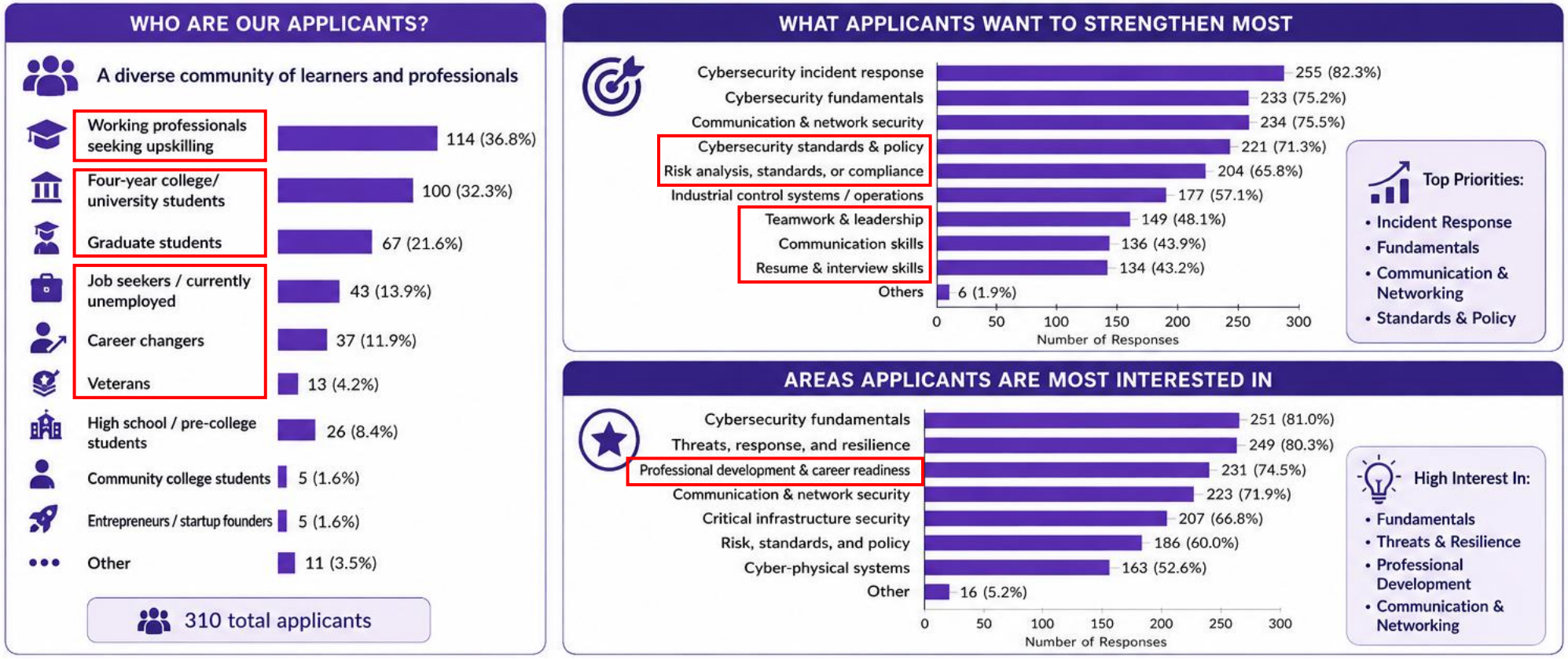
Who is seeking cybersecurity training



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Required Skills in Cybersecurity Workplace

- Cybersecurity is fundamentally human-centered profession.
- Modern cybersecurity professionals operate in collaborative, fast-changing, and high-stakes environments.
- Success requires beyond technical expertise.
- Workplace skills are essential across incident response, infrastructure security, policy coordination, and risk management.

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University Perspective

Modern Cybersecurity Education

Beyond Technical Instruction

Modern cybersecurity education should extend beyond technical instruction.

Universities should integrate:

Hands-on experiential learning

Engage students through real-world activities, labs, and practical problem-solving.

Professional and communication skills

Build communication, teamwork, leadership, and critical thinking abilities.

Industry and stakeholder engagement

Connect students with industry partners, professionals, and community stakeholders.

Interdisciplinary collaboration

Encourage collaboration across disciplines to solve complex cybersecurity challenges.

Examples at Rowan University

Cybersecurity Ethics and responsible decision-making

Integrate ethics, privacy, and responsible decision-making in course design.

Project-based experiential learning

Provide real-world experience through Engineering Clinic programs.

Cooperative and industry-connected training opportunities

Offer co-ops, internships, and partnerships that bridge classroom learning with industry.

Team-based and communication-focused learning environments

Promote teamwork, presentations, and effective communication in every project.

Rowan Engineering Clinic Project

Every Tuesday and Thursday
from 12:30 to 3:30 pm

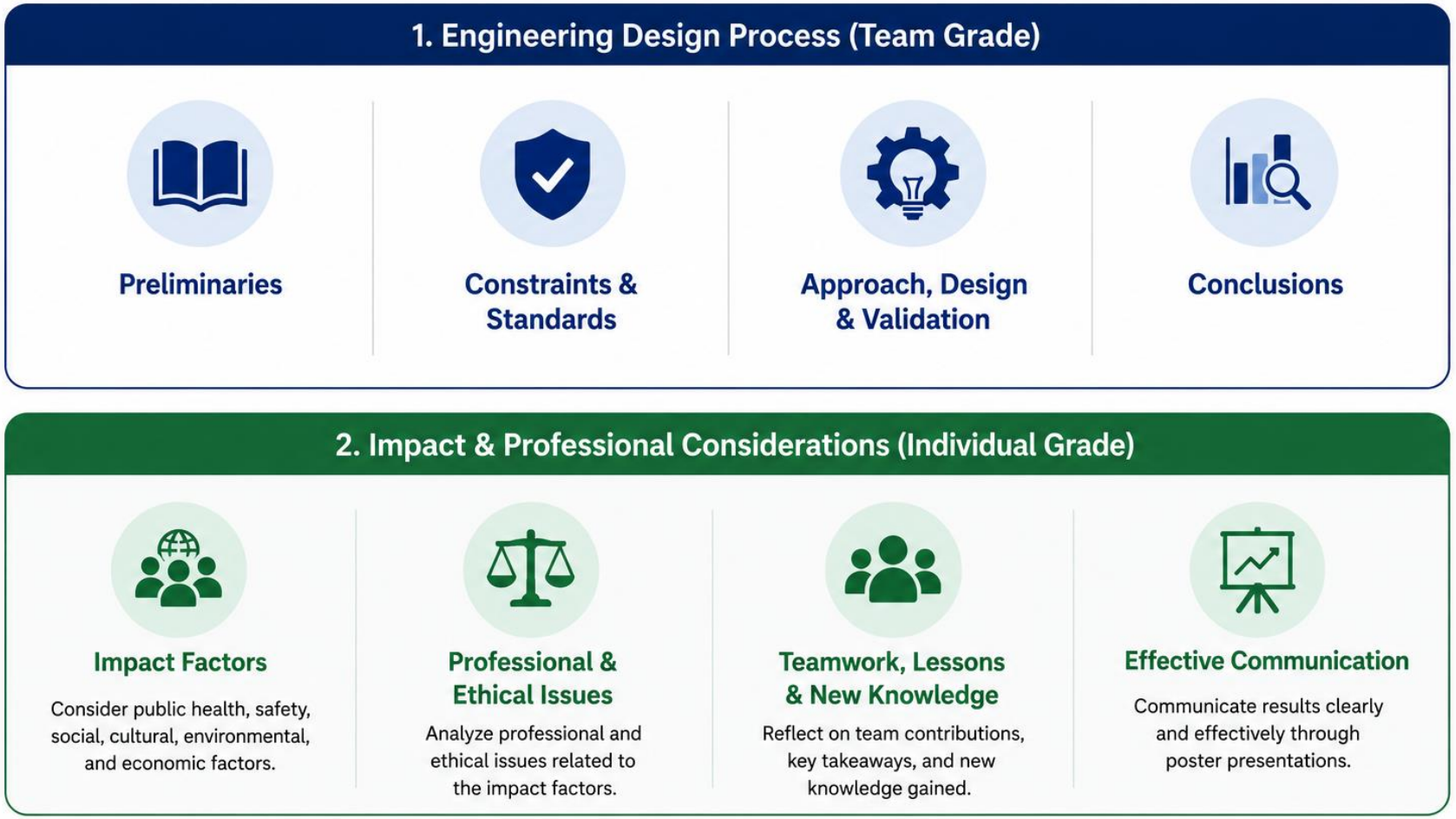
Every undergraduate student
in Rowan Engineering school works in a group with a faculty member on an engineering project.

Projects are designed and proposed
by faculty members based on their research or collaborations with industry.

Undergraduate students from different majors can collaborate in the same group to gain hand-on experience and work on real-world challenges.

Evaluation is not only on the technical work,
but also professional and ethic, social impact, communication and team works.

Evaluation of Engineering Clinic Project



Cooperative training in Rowan ECE

Bridging classroom learning with real-world experience.

Optional and Open to Qualified Students

The co-op program is optional and open to qualified and motivated ECE students.

Real-World Experience

Students work full-time at one of our industrial partners during the summer between their junior and senior years and continue part-time during the Fall semester of their senior year.

Strong Industry Partnerships

Our program connects students with leading organizations across defense, energy, and engineering industries.

High Impact, Strong Outcomes

A significant number of ECE students participate each year, with a high return-offer rate from our industry partners.

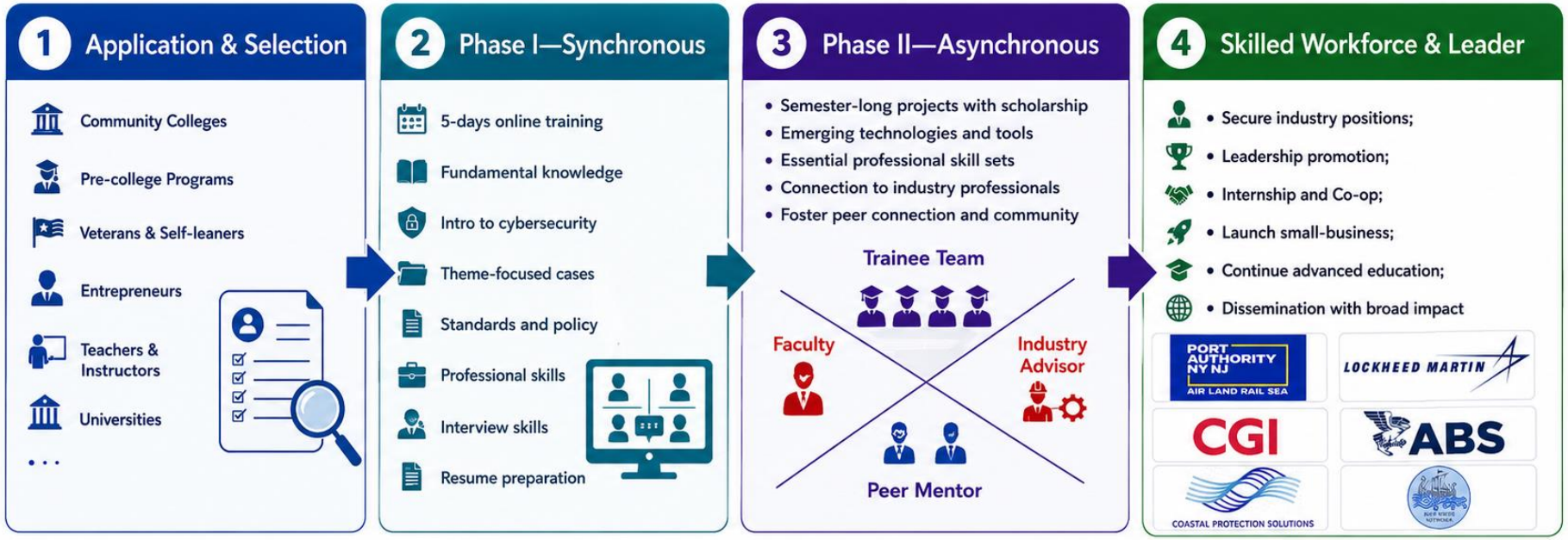
Our Industry Partners

- **Atlantic City Electric** (Atlantic City, NJ)
- **Lockheed Martin** (Moorestown, NJ)
- **NAVSEA** (Philadelphia, PA)
- **Inductotherm Corp.** (Rancocas, NJ)
- **Consarc Corp.** (Rancocas, NJ)
- **Concord Engineering** (Vorhees, NJ or Philadelphia, PA)

15% – 20%
of ECE students participate in the co-op program every year.

90%
of participants receive a return offer.

From Learning to Workforce Readiness



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Future of Cybersecurity Education

- Cybersecurity education must evolve beyond purely technical instruction.
- Human-centered skills are increasingly essential in cybersecurity careers.
- Universities play a critical role in building resilient and workforce-ready cyber communities.

Rowan University

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Q&A

ISACA

Fueling Careers. Strengthening Trust. Building Leaders.

Melissa Swartz, CAE

Senior Director, Membership & Community Operations

13 May 2026: NICE Webinar

We are a Global Community

47% North America

21% Europe

20% Asia

3% Central/South America

5% Africa

3% Oceania

195K+ MEMBERS

ISACA

ISACA Certifications

AVERAGE SALARIES IN 2023 (US)

$154K+
CISA

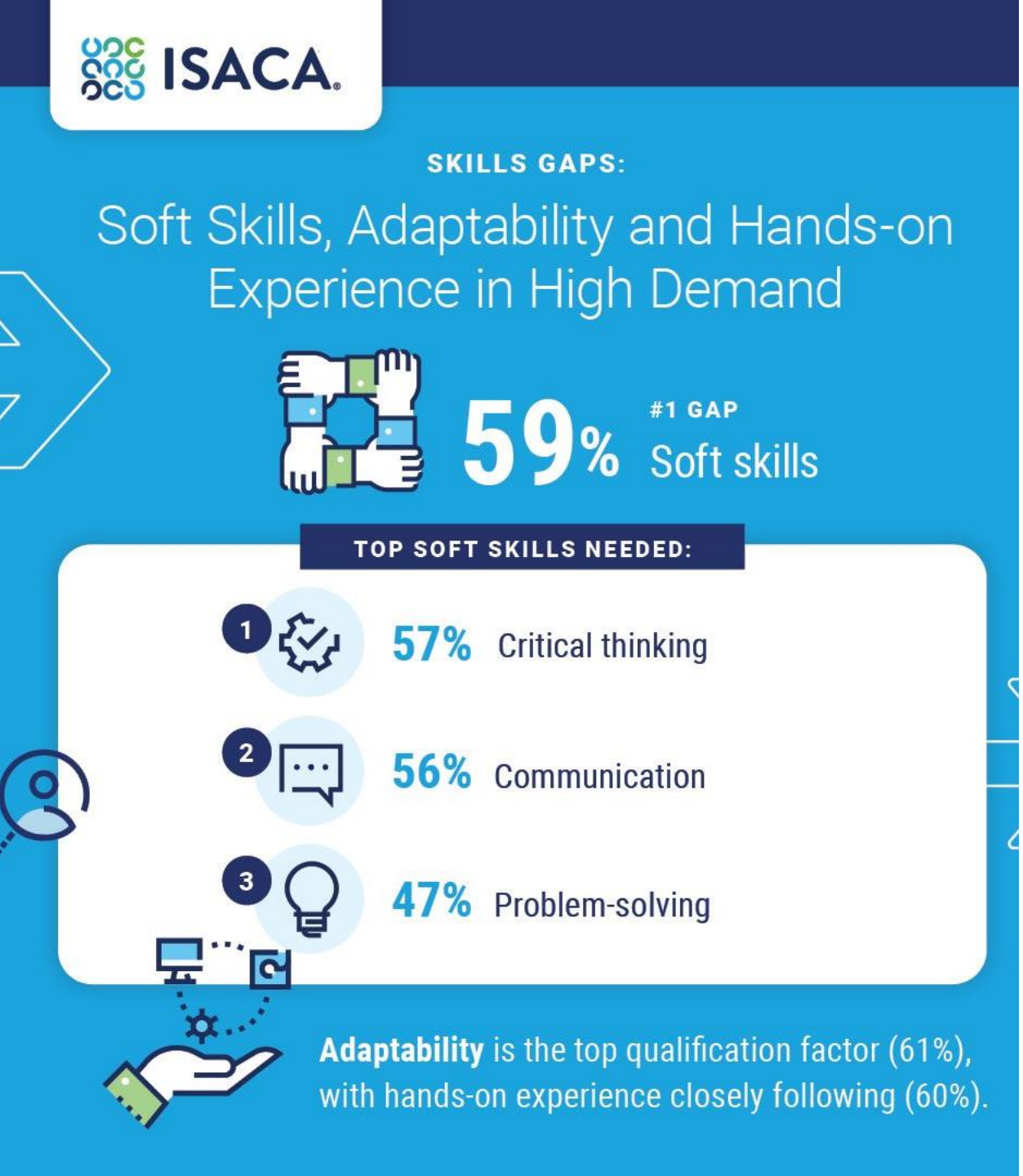
$167K+
CISM

$164K+
CGEIT

ISACA

www.isaca.org/resources/news-and-trends/isaca-now-blog/2022/exploring-the-relationship-between-it-certifications-and-salaries

Human Skills are critical in technical fields



*"The findings reveal that cybersecurity is no longer just a technical battlefield, but also a **human** and **organizational** challenge."*

PABLO BALLARIN
Cybersecurity Advisor

ISACA, "State of Cybersecurity 2025 Global Edition" [Infographic], *State of Cybersecurity 2025*, 2025, https://www.isaca.org/resources/reports/state-of-cybersecurity-2025

ISACA

Find your Professional Community

Get Involved

Practice new skills in new environments

- **Career Journey Tool**
- **Engage** online community
- **Chapter events** and leadership opportunities
- **Volunteer** opportunities
- **Mentorship Program**
- **Shape the Conversation**
  - Author an article
  - Speak at conferences
  - Write an exam question

Mentorship Program

A 1:1 partnership can help both parties enhance their management styles, emotional intelligence, and interpersonal skills.

“The **resources, connections, and dedicated guidance** from my mentor have been invaluable… I hope to one day be able to return the favor.”

LEHLOHONOLO MAKOTI, ISACA MENTEE

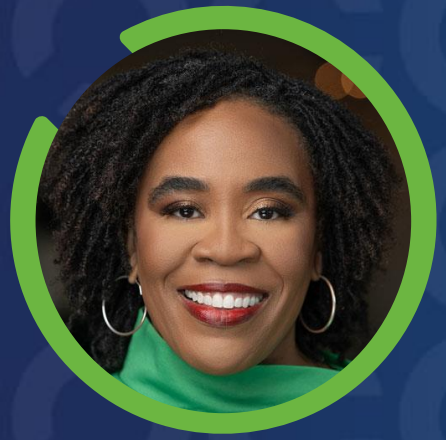
Connect with other digital trust professionals for career development and support

Industry Events: More than Thought Leadership

- Effective messaging
- Extemporaneous speaking
- Adaptability
- Confidence
- Facilitation
- Stage presence, managing a room
- Exposure to new connections, new ideas

2026 Member Experience Leadership Series

21 January
Rethinking Trust & Leadership
Rachel Botsman



10 June
Humanistic Leadership In the Age of AI
Dr. Cornelia Bearyman

14 October
Epic Teaming
Sarah Robb O'Hagan

18 November
The Leader's Compass
Sivakumar Palaniappan

Event dates and speakers are subject to change without notice.

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We’re here to support your success

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Credentials

Career Journey Tool

Mentorship

Engage Forums

Leadership & Training

Chapters & Networking

Career Center

Publications

Events

Learn more:

www.isaca.org

Q&A

Submit an event survey!

https://survey.nist.gov/jfe/form/SV_3Q36mtzR2lND4Tc

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NICE Webinar Series

NICE Webinar: Shaping the Future of the Cyber Workforce in the Age of AI

July 15, 2026, 2:00-3:00PM ET

Registration coming soon.

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nist.gov/nice/webinars


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