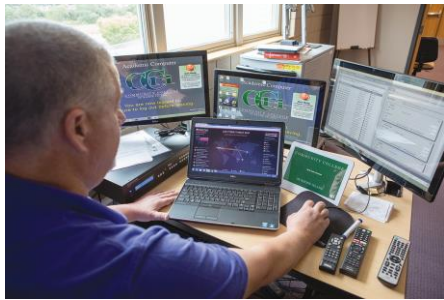PROVIDENCE BUSINESS NEWS
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By Nancy Levin

R.I. colleges try to satisfy cybersecurity demand

SCREEN TIME: Mike Kelly, -cybersecurity program director for the Community College of Rhode Island, performs a threat check.

When the federal government started stepping up enforcement of cybersecurity requirements for agencies and contractors, McLaughlin Research Corp. was in a bind.

The Middletown-based engineering and technical support firm was subject to the federal standards due to its contracts with the U.S. Navy. But instituting a complex, rigorous set of unfamiliar cybersecurity protocols was more than the two-person information-technology department could handle, said Christopher Michaud, the company's IT director.

That was 2013. Fast forward to today, and the company has not only met the federal requirements but it helped fund a spinoff company, NeQtar Labs LLC, staffed by McLaughlin former interns, that works specifically to help other defense contractors meet federal cybersecurity compliance standards.

That's in no small part due to the Southeastern New England Defense Industry Alliance, which has since 2015 partnered with the R.I. Department of Labor and Training through its Real Jobs Rhode Island program, matching students at state colleges and universities with paid internships at its 140 member organizations.

Internship applications have doubled in the last five years, but so too has industry demand from members and those outside the defense industry, said Linda Larsen, SENEDIA's director of outreach and education.

Indeed, computer and mathematical occupations – which includes cybersecurity-specific jobs – are among the fastest-growing employment sectors in the state, increasing 42% from 2009 to 2019 for a total of 14,500 workers, according to data collected by DLT. By comparison, total state employment has increased 5.4% in the same period.

And with the pandemic forcing more people online for work, school and day-to-day needs, the risk of cyberattacks will only grow, and with it, industry demand for a labor force skilled in all aspects of cybersecurity.

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"Cybersecurity has moved from being a specific silo to everywhere," said Mike Kelly, cybersecurity program director for the Community College of Rhode Island. "That skill set and knowledge base is going to be in demand for some time."

Enrollment in CCRI's two-year associate degree, which boasts a National Security Alliance designation, has grown from 108 students in the fall of 2017 to a projected 201 this semester, according to data shared by CCRI. The college's Division of Workforce Training also debuted a new cybersecurity training program in May, offering a 60-hour program to 23 business professionals through a partnership with the Greater Providence Chamber of Commerce.

Other education institutions have also stepped up their cyber offerings. Enrollment for a new minor in cybersecurity at Rhode Island College opened this semester, while the University of Rhode Island recently expanded its array of undergraduate and graduate cyber programs to add a five-year combined bachelor's and master's degree, according to Douglas Tondreau, lead information technologist within URI's computer science department.

Allegra Angell is among the first students to enroll in the Accelerated Bachelor's to Master's Program in cybersecurity. Having completed her bachelor's degree in computer science and criminal justice at URI already, the 22-year-old said the ABM program was the quickest way to put her on the path to her dream job working in national security for a federal agency.

HOME ON THE RANGE: Kevin Crawford, left, chairperson of the Community College of Rhode Island's computer studies program, and Mike Kelly, CCRI cybersecurity program director, at the Rhode Island Cyber Range, where simulated cyberattacks can be conducted for training. The range is located at CCRI's Newport campus.

But the programs and courses aren't just for those who aspire to work in national security. From finance to health care to education, nearly every industry has recognized the need for trained cyber professionals – and is hiring accordingly, according to Tondreau.

It all boils down to money, in his view.

"Companies have started to realize, as they notice attacks happening, that it's costing them millions of dollars to resolve versus hiring a cyber-trained professional who can prevent that," he said.

While McLaughlin's decision to beef up its cybersecurity workforce was not the result of a cyberattack, Michaud believes the company's investments have positioned it well to protect against the rise in cyberattacks reported since the onset of the coronavirus pandemic.

"We're only as secure as the person with the lowest level of knowledge of computer systems," agreed Jessica Mayernik, a grant adviser with Real Jobs RI.

To that end, colleges and universities, including CCRI, have also incorporated basic digital literacy into their curriculum, teaching students across disciplines the risks of cyberthreats they may not otherwise think about – such as on Facebook or other social media platforms, Kelly said.

Asked if growing cyber programming across local colleges and universities created competition, Kelly said no, at least not for CCRI. If anything, more options for students leaving CCRI to obtain a four-year degree and a master's degree will only benefit the school, the students and the industry, he said.

Each school also offers a different focus: For example, URI centers on defending and protecting against cyberattacks, while Salve Regina University specializes in federal compliance and regulation, Tondreau said.

"There might be some competition, but the more we can offer, the more we can deliver for the state and our employers," he said.