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SPRINGFIELD

STCC students interning over summer at Lincoln Laboratory

Two Springfield Technical Community College students this summer are working as interns at MIT Lincoln Laboratory, a U.S. Department of Defense research and development center in Lexington.

MIT Lincoln Laboratory selected Douglas Bednarczyk, of West Springfield, and Shane Richardson, of Hebron, Conn., students from the Optics and Photonics Technology program at STCC. They will intern at the Lexington facility through August.

Richardson earned his associate degree from STCC in May, but will return this fall to take additional classes. Bednarczyk finished his first year in the two-year Optics and Photonics Technology program and hopes to earn his associate degree in spring 2020.

Students in the Optics and Photonics Technology program learn about the practical applications of light, optics and electronics. High-tech applications include lasers, fiber optics, holography, laser materials processing, optical systems and much more.

Nicholas Massa, department chair for Optics and Photonics Technology, helped Richardson

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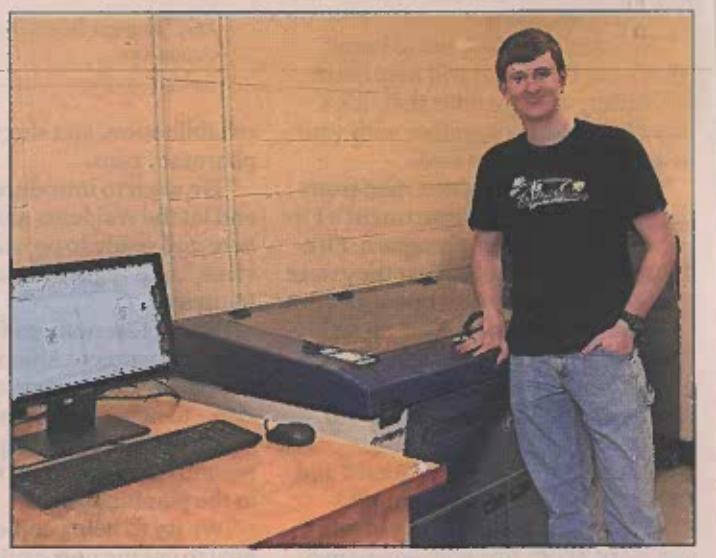

STCC student Douglas Bednarczyk, of West Springfield, stands in school's Optics and Photonics Technology lab.

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and Bednarczyk land the internships. They are not Massa's first students to get hired as interns at the prestigious laboratory.

A former student, Gerald Gagnon, served as an intern in the summer of 2018 and ended up getting hired full time. He was chosen as a Lockheed Martin Future Leader in Photonics. Between January and May 2019, Gagnon contributed to the creation of a lab manual for a hands-on integrated photonics boot camp to be offered at Massachusetts Institute of Technology Jan. 13-17.

"Students in the Optics and Photonics Technology program at STCC train on state-of-the-art equipment used in many commercial laboratories," Massa said. "There aren't any other associate degree programs like ours in the region. That's why companies approach us. They discover our students know how to use the laser equipment and know the theory. They're ready to go to work."

Massa said there are not enough trained candidates to meet the demand for jobs in the optics and photonics industry.

"I get calls every day from companies asking about candidates for internships and full-time positions. Nearly all of my students who graduate from the program get hired, and they often get multiple job offers," he said. "STCC also is one of the most affordable pathways to a career and we are a point of entry for many first-time college students who come from low-income families. We provide one of the best values in higher education. After you get a degree in Optics and Photonics Technology, you can land a job that pays between $40,000 and $60,000 a year to start, and you go up from there."

Massa recommended Bednarczyk and Richardson for the MIT Lincoln Laboratory internship, noting they are serious and hard-working students.

The internship was created through a collaboration between MIT Lincoln Laboratory, the Commonwealth of Massachusetts and AIM Photonics (American Institute for Manufacturing Integrated Photonics), a Manufacturing USA institute established to promote the manufacturing of photonic integrated circuits in the United States for academic, commercial and government applications.

Before he started the internship in May, Bednarczyk, 19, said he was excited about the opportunity. "Thrilled and nervous," he said. "I'm definitely not from the city, but I can't wait for the experience."

"I've been impressed with the quality of students who came out of this program."

Eric Lim

Bednarczyk is a third-generation STCC student. His grandfather studied electrical engineering technology. His father graduated from a biomedical technology program.

Bednarczyk looked into the Optics and Photonics Technology after reading an article about STCC's program. "I enjoy the program. It's really engaging and hands-on. I'm not the type of kid that was meant to sit behind a computer all day. To use the laser etching and marking systems we have, I think that's a blast."

Richardson, 32, the other student who is interning at MIT Lincoln Laboratory, came to the Optics and Photonics Technology program with bachelor's degree in theater from a university in California.

"I always had a predisposition for science," Richardson said. "My dad's an optical scientist and he mentioned some schools with a program ... I checked out the program here and fell in love with it. I liked the idea that I could go to school for two years, start working in the field and then continue on with my education."

While studying at STCC, Richardson had the opportunity to study with a mentor, Eric Lim, who holds a doctorate in electrical engineering from Stanford University.

"As a hiring manager, I've been impressed with the quality of students who came out of this program," said Lim, who worked at a laser technology company. "It was exciting to find a student who was hands-on and interested in laser physics, something I had trained for in my graduate days. So I was very happy to mentor Shane."

For his class project at STCC, Richardson experimented with converting invisible infrared light into visible green light.

"I didn't realize how much I was going to enjoy the program or how beneficial it was going to be," Richardson said. "It was a nice fit. I like the people here and I like the atmosphere. Not many people know about Optics and Photonics Technology. It's like a little hidden gem inside of STCC."