FALL 2023

Impact

WAUKESHA COUNTY TECHNICAL COLLEGE

DEMYSTIFYING

AI

6

8

10

Table of Contents:

Enjoy this fall edition of the Impact

WCTC Impact is designed to showcase stories of how our graduates, students, instructors, and community and business partners strive to make a difference in the world around them, and how WCTC has propelled them to succeed. This publication highlights the latest happenings, changes and improvements at the College, and it shines a light on student and alumni achievement.

PRESIDENT

This fall, WCTC launched our initial academic programming in artificial intelligence (AI). Our College is one of the few in the Midwest and the first two-year college in Wisconsin to offer artificial intelligence, and we are just getting started. Over the next year, we will continue to increase offerings in data science, machine learning and AI. As industry in our region evolves and our workforce changes, WCTC intends to be the provider of solutions and a partner in the creation of new business and new industries made possible by these new technologies.

One hundred years ago, WCTC began operations with just a few drafting tables that were made by the first group of students. Today, we are pushing the envelope to provide academic programs that would not have been possible – even three years ago. We are doing this to ensure that our region has the most talented workforce possible and to meet our self-imposed responsibility for community prosperity.

At the beginning of our second century, we are focused on the horizon and intentionally leading higher education into the future.

Thank you for supporting WCTC.

Rich Barnhouse, Ph.D.

WAUKESHA COUNTY TECHNICAL COLLEGE
WCTC

Hands-on Higher Ed

AI AT WCTC

Delivering Programming, Discovering the Benefits and Demystifying the Myths of Artificial Intelligence

Need to ask Alexa for your favorite football game day appetizer recipe? That's artificial intelligence, or AI. Visiting a store's website and need information about a product? Ask the chatbot. Also, AI. Want to open your smartphone just by flashing a smile? That's facial recognition software – powered by AI.

And while these examples reflect how AI is frequently used in society, its impact on business and industry is even more significant. It is streamlining operations, automating routines, improving efficiencies – essentially revolutionizing the world of work.

The need for workers in the field of artificial intelligence is climbing: the U.S. Bureau of Labor Statistics estimates there will be 11.5 million data-related job openings by 2026 – data being the fuel for AI and machine learning – and it's on the rise.

AI AND DATA TRAINING AT WCTC

To prepare Southeastern Wisconsin for workers with the skillsets required in AI and data-related jobs, Waukesha County Technical College launched three certificates in fall: Foundations of AI, Foundations of Data Analytics and AI Technician. The AI Data Specialist associate degree program was also developed over the past year, and it is slated to begin in August 2024. Additionally, WCTC is planning to create customized training solutions through its Corporate Training Center for small- and mid-size businesses with limited or no AI experience.

ARTIFICIAL INTELLIGENCE (AI)

A technology that mimics the way humans think in order to perform complex tasks (such as analyzing, learning and reasoning), without direct human intervention. Conventional AI analyzes data to make predictions and find patterns, while generative AI starts with a prompt and creates new content and data.

In Wisconsin, WCTC is the only two-year college that offers AI certificates, and soon will be the first to offer an associate degree, said Richard Barnhouse, Ph.D., president of WCTC. Nationwide, just a handful of two-year colleges currently offer AI programming.

The push for these programs stems largely from what WCTC has heard from employers, Barnhouse said, but it's also the College's strategy to stay ahead of the AI curve.

"When (employers) would describe what they needed at their companies, they would describe AI skills in very general and uncertain terms," he said. "What we're focusing on at WCTC is conventional AI, and that's what's needed dramatically and desperately in business and industry right now."

DEVELOPING PROGRAMS
FOR AN EMERGING FIELD

Alli Jerger, WCTC associate dean of Information Technology (IT), and Nicki Kowalchuk, IT instructor, have been instrumental in creating the certificates and forthcoming associate degree program. Research began in earnest in 2022, and a significant amount of input – including curriculum guidance from Intel Corp. – have gone into shaping these offerings.

Dawn Voigt, Ph.D., and David Schubot, Ph.D., program development and evaluation coordinators at WCTC, held information gathering meetings with employers from multiple industries, among them manufacturing, healthcare and IT, and discovered that most felt it necessary to implement AI to increase efficiency, effectiveness and capacity. Some businesses are already using AI to varying degrees, but a common theme emerged among participants – to stay competitive, their businesses need to embrace AI.

"We're kind of at the point now where most companies are starting to implement some form of AI," Kowalchuk said. "If they're a smaller or medium business, it's going to be some sort of package solution, but there still needs to be somebody to manage (the package and data) and to understand it."

Added Jerger: "Even those bigger companies need 'data wranglers.' Someone has to take all the data, figure out what the right data is, fit it in (to a system) and then figure out what the story is on the other side."

The level of employee best suited for those types of roles can get first-rate training at a technical college, said Matt Kirchner, who participated in an

information gathering meeting. Kirchner is the president of LAB Midwest – a distributor of curriculum, eLearning and training equipment for manufacturing, engineering and skilled trades.

"By and large, the people responsible for the systems that are being monitored, and the equipment that we're using to monitor those systems, are people at the technician level, the operator level, the supervisor level. Without them, there is no data analyzed," he said.

THE BENEFITS OF AI
IN THE WORKPLACE

When businesses implement AI in their operations, those employers learn more about their customers, employees and processes – and the markets they're in, Kirchner said.

"There are huge benefits that can come from gathering and analyzing data at the macro level and in a way we just can't do manually," he said. "It requires huge computing power to be able to find patterns in certain data. That's the opportunity; the risk in not doing it is your competitor does."

AI can also provide an alert to problems at an earlier stage, to prevent major issues down the line. For example, Kirchner said predictive analytics in a manufacturing setting could detect a malfunction in a machine, which would otherwise cause a snarl in the production process, leading to a loss in productivity. By being able to determine that issue in advance saves the company time and money.

DEMYSTIFYING
THE MYTHS
SURROUNDING AI

A common myth surrounding AI is that the technology will replace the need for humans in the workplace. Experts say, that's simply not true.

"Part of what is important to understand is that in Waukesha, there is a labor shortage in a number of industries. And industry has to solve this; we can't find enough people to do those jobs. What a lot of our business partners are trying to use AI for is to close that gap," Jerger said. "So, they can deal with those labor shortages in things that AI can help with, and then focus on finding talent in other areas."

Barnhouse added that right now, there are almost two jobs for every one job seeker. "In the next few years, Waukesha is going to see a bigger dip in the number of people in the workforce and the gap will get wider, due to shifting demographics. As such, the need for AI will become even greater."

"It's not going to take jobs, it's going to save business and industry that cannot find employees," he said. "And it's going to allow employers not only to survive, but thrive." ■

To learn more about the expanding AI and data opportunities at WCTC, visit **www.wctc.edu/programs.**

GAME ON

NEW ESPORTS FACILITY OPENS AT WCTC

WCTC's new state-of-the-art esports facility is ushering in a new era of immersive sports. Designed to offer students the ultimate gaming experience, this cutting-edge hub boasts 18 fully equipped Alienware Aurora R15 gaming stations plus high-end streaming equipment.

Beyond competitive gaming, the College plans to use the space to host recreational gaming, summer camps, tournaments and academic classes focused on marketing, IT data and security. This holistic approach recognizes that esports is more than video games; it provides a vehicle to enhance students' skills in critical thinking, problem-solving and time management, among others.

As one of the fastest-growing collegiate sports in the United States, esports has become a key factor in many students' enrollment decisions.

Extracurriculars like esports are crucial in building student relationships and, in turn, enhancing retention rates.

Ian Sheeley, WCTC's esports coordinator and coach, is spearheading recruitment efforts, with a focus on fostering a sense of belonging. "I hope that a student walks into esports the first day without knowing anyone in the room, and after the first day, I hope they feel like they belong on this team," said Sheeley. "If a single student uses esports as a motivation to come to class every day, then my job will be a success." ∎

> **If a single student uses esports as a motivation to come to class every day,** then my job will be a success."

LAKELAND UNIVERSITY'S WAUKESHA COUNTY CENTER OPENS ON WCTC CAMPUS

WCTC welcomed Lakeland University to its main campus this summer in a move that solidifies their relationship and brings the two institutions together under one roof.

The relocation creates a synergy with the two institutions, says Lakeland President Beth Borgen, DBA., and WCTC President Rich Barnhouse, Ph.D., as both are focused on workforce development, hands-on learning and providing students with opportunities to advance their education. The center includes an office, dedicated classroom and access to other spaces.

Learn more at **www.lakeland.edu/wctc.** ∎

Beth Borgen, DBA, president of Lakeland University

NURSING PROCESS NAMES WCTC'S ASSOCIATE DEGREE NURSING PROGRAM SIXTH BEST IN THE MIDWEST REGION

CONGRATULATIONS to WCTC's Associate Degree Nursing (ADN) program for being ranked No. 6 by Nursing Process as one of the best ADN programs in the Midwest region!

The College scored 94.18% and was ranked based on factors such as academic quality, affordability, reputation and NCLEX-RN pass rates. A total of 660 Nursing programs were evaluated as part of the ranking process.

Nursingprocess.org is a premier online destination reaching millions of aspiring nursing students and their families, helping them find the right program and school. ∎

WAUKESHA COUNTY BUSINESS ALLIANCE HONORS WCTC

THE WAUKESHA County Business Alliance has named Waukesha County Technical College as Advocate of the Year.

The award celebrates individuals who have demonstrated incredible dedication to making Waukesha County a vibrant community.

The Alliance honored WCTC for its innovation, responsiveness and commitment to constantly evolve and meet the changing needs of the business community. ∎

Devoted to
SERVING OTHERS

Early in high school, Justin Young recalls a conversation with his aunt about his post-graduation plans. He knew in his heart what his career path would be, and he began exploring the field of fire service as a young teen.

By the time he was a high school senior, Young spent part of each school day at Milwaukee Area Technical College taking classes in fire service and earning dual credits. He continued his studies and completed the full Fire Protection Technician associate degree program at MATC and graduated in 2012.

He soon realized he could amplify his skillset with additional training, and he enrolled in the Accelerated Paramedic Technician program at Waukesha County Technical College in 2013 – earning a diploma in just five short months.

Paramedic Certification Enhances Career

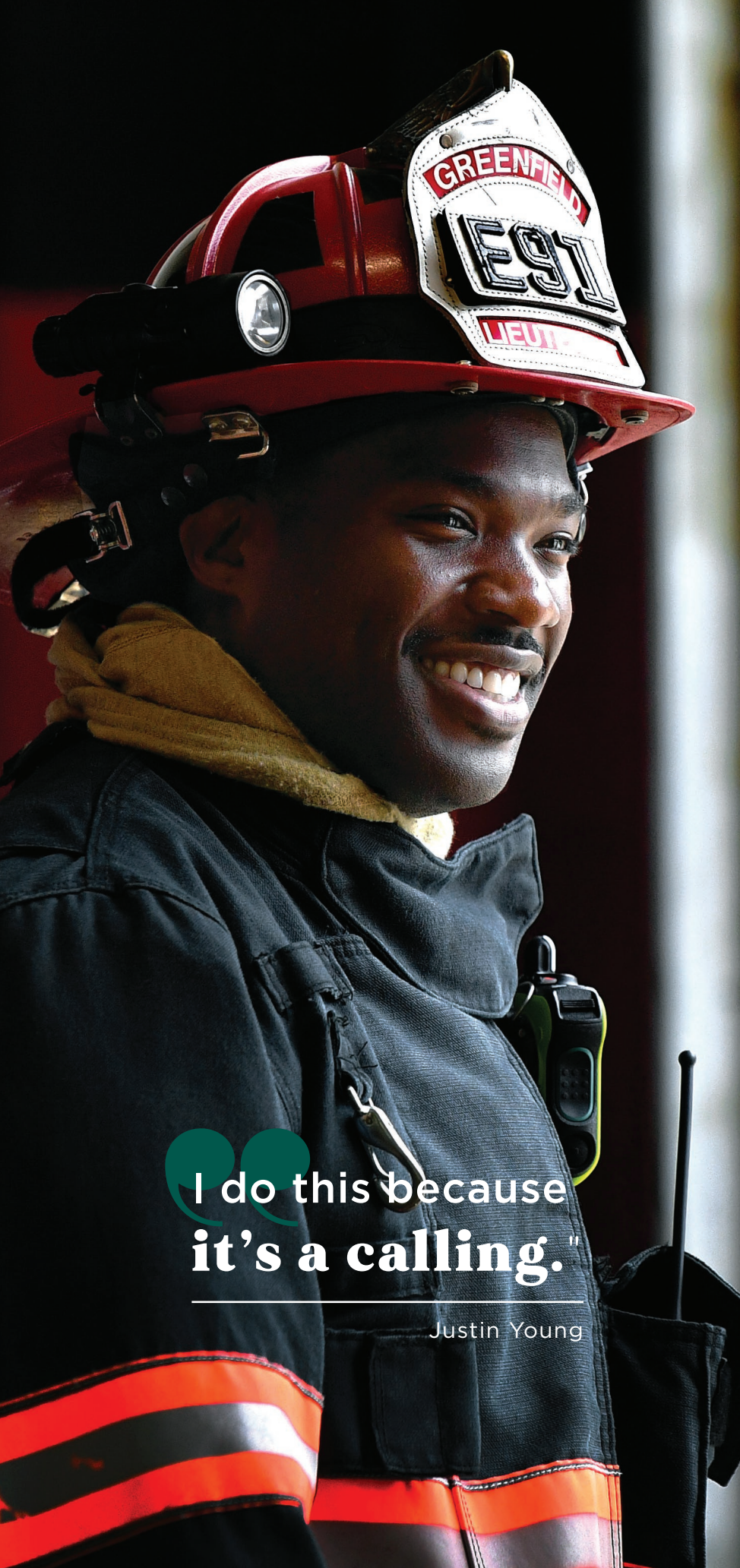"Most fire departments around this area want paramedics, which is a great thing for every community: all citizens get a higher level of care," Young said. "Once I realized that was the next step, it was a no-brainer to come to WCTC. I had a lot of friends that were enrolled here and I knew some of the instructors at that time. I knew exactly what I wanted to do – to get that license and get started."

When he began in the WCTC program, Young held a paid-on-call position with the Sussex Fire Department. Near the end of his program – in spring of 2013 – he became a full-time firefighter/paramedic with the Greenfield Fire Department, where he is now a lieutenant.

Young said working as a firefighter and paramedic has been an honor, but also something he feels he was meant to do.

"Being able to do this job has been a blessing. It's easy to say that I do this because I want to help people; I do this because it's a calling. It's different than just helping them do a task; I'm really impacting their lives," he said. "When I get to be the one that extends someone's life so a wife gets to have her husband for a few more years, or children get to see their mom for a number of years and expand that lifespan, the feeling that comes from that is profound."

> **"I do this because it's a calling."**
>
> Justin Young

Giving Back to the Community

Besides working in the field, Young also volunteers. He spends a week each summer serving as a counselor at the Summer Camp for Burn Injured Youth hosted by the Professional Fire Fighters of Wisconsin Charitable Foundation Inc. The camp is designed for children and teens with life-changing burn injuries to grow their lifelong support system, continue to heal from the emotional trauma of their burns and just "be a kid." Young was honored last fall with an award for 10 years of volunteer service.

Additionally, Young's educational journey has come full circle: once a student, now an adjunct instructor. He's been teaching classes at MATC for the past few years, and in September, he began teaching EMS classes at WCTC.

"The instructors that have taught me (at WCTC and MATC), now I get to teach alongside them – and keep learning from them," Young said. ∎

*For more information about fire, paramedic and other programs at WCTC, visit **www.wctc.edu/programs.***

10TH ANNIVERSARY

WCTC Continues Celebrations Throughout 2023

In January, WCTC kicked off the College's centennial year with a variety of events scheduled throughout the spring semester to honor and celebrate students, faculty, staff and the community.

A sampling of spring events included:

• The unveiling of a new mascot – Oliver Lindholm Steele – or more casually, "Ollie."

• A campus and community cleanup event held on Earth Day, in which more than 210 volunteers, including members of the WCTC and greater Waukesha community, helped clean up and beautify the campus, local parks and green spaces.

• The "Light the Hoan" project: On May 1, 2023 – the official date of the 100th anniversary of WCTC – Milwaukee's iconic Hoan Bridge was illuminated to highlight the special occasion. The bridge was lit in a kaleidoscope of colors and featured three unique light displays created and coded by WCTC students and instructors.

• A golf outing to celebrate the College milestone and also raise money for WCTC's Child Development Center.

LEAVE A
Lasting Legacy
AT WCTC

With a financial gift to the WCTC Foundation, you can customize an engraved brick that will become a permanent addition to the WCTC campus – and help pave the way for WCTC's future!

By participating in this special centennial project, your donation will contribute to the growth and advancement of WCTC and the College's next century of impact. Proceeds will directly support scholarships, program enhancements, and most importantly, the success of WCTC students.

An engraved brick, which will be part of a new landscaped display on the main campus honoring the College's 100th anniversary, can celebrate a graduate, remember a loved one, honor a WCTC retiree, highlight a community partnership and more. Three brick sizes are available: standard (4-by-8-inch) for $100, square (8-by-8-inch) for $1,000 and premium (12-by-18-inch) for $2,500. Concrete benches are also available for $5,000.

Visit **www.wctc.edu/100** or scan the QR code for more information!

Special events continued into the fall semester. In September, WCTC welcomed members of the College community back to campus with an end-of-summer celebration and a proclamation by Waukesha County Executive and WCTC alumnus Paul Farrow. In October, WCTC celebrated with an evening of fine dining prepared by WCTC grad Justin Aprahamian – James Beard Award-winning chef and owner of Sanford – along with Culinary and Hospitality students.

On Thursday, Nov. 9, the College will host a formal gala on the WCTC campus, which will include dinner and presentations that highlight the College's proudest accomplishments and plans for the future. Tickets are $150 per person, and space is limited.

Please visit **www.wctc.edu/100** for details. ■

SUMMARY OF WCTC PROGRAMS

Architecture and Construction
Building Trades - Carpentry
Refrigeration, Air Conditioning and
 Heating Service Technician
Concrete Finishing (ABC)
Electrician (ABC)
Plumbing (ABC)

Business, Management and Finance
Accounting
Human Resources
Marketing
Real Estate

Education
Autism Technician

Cosmetology
Aesthetician

Interior Design

Graphic Communications

Health
Nursing
Dental Hygiene
Phlebotomy
Surgical Technology
Medical Assisting

Hospitality, Culinary, and Baking and Pastry

Information Technology

Manufacturing
Welding
Robotics
Tool and Die

Protective Services
Criminal Justice
Emergency Medical Technician
Fire Protection Technician

Science, Technology, Engineering and Math (STEM)
Biomedical Electronics
Electrical Engineering
Manufacturing Engineering
Mechanical Engineering

Transportation
Automotive Maintenance
Diesel Maintenance
Truck Driving (CDL Class A)

Check out all our programs online at wctc.edu/programs.

NEW DEGREE AND DIPLOMA PROGRAMS

Substance Use Disorder Counseling and Mechanical Systems Technology began welcoming students this fall.

Substance Use Disorder Counseling

60-CREDIT ASSOCIATE DEGREE

This program prepares students to work with individuals experiencing substance use disorders by developing skills in counseling, addiction assessment, case management/treatment planning, group facilitation, trauma-informed care and crisis management.

Mechanical Systems Technology

26-CREDIT TECHNICAL DIPLOMA

Students will build a broad mechanical skillset and learn to perform preventative maintenance, troubleshooting and general maintenance of mechanical systems in a wide range of industries.
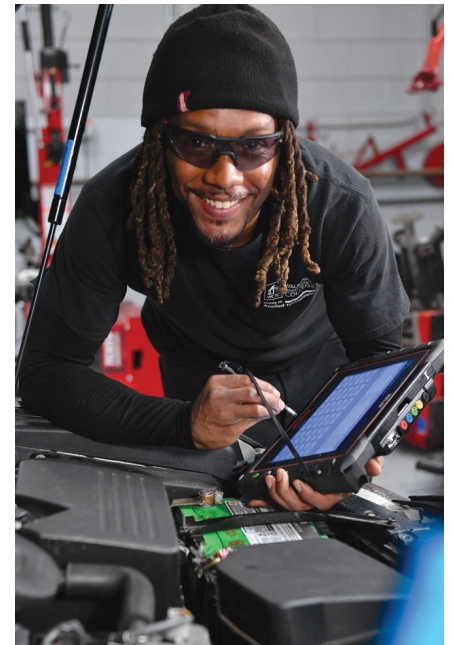
TIME SENSITIVE MATERIAL

Join us for a WCTC

OPEN HOUSE

Thursday, November 2
Or Thursday, February 22

Drop by between 3 - 7 p.m.

Anthony J. Natalizio Center, Building S
800 Main St, Pewaukee

← **REGISTER I** WALK-INS WELCOME
Learn more at wctc.edu/open-house

GO BEYOND
the expected