

2017

Excellence in Action Award

Summit Technology Academy

Network Engineering
Information Technology Career Cluster

OVERVIEW

What originated more than fifteen years ago as a computer repair class has transformed itself into a state-of-the-art cybersecurity program. The Network Engineering Program at Summit Technology Academy in Lee’s Summit, Missouri brings together students from 24 urban, rural and suburban high schools to engage in a specialized program only available through a shared campus. The program begins with foundational skills, such as an introduction to the architecture, structure and functions of the Internet, and progresses through a comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design, implement, and secure enterprise and wide area networks.

Students who complete the program in their junior year can choose to participate in the university partnership called Missouri Innovation Campus (MIC), where they can begin to earn a bachelor’s degree while still in high school, as well as participate in extensive paid internship opportunities.

Secondary Students (95 students)	Percentage
Male	90%
Female	10%
Low-Income	15%
Minority	23%
Postsecondary Students (78 students)	Percentage
Male	90%
Female	10%
Low-Income	20%
Minority	15%

EXTENSIVE WORK-BASED LEARNING OPPORTUNITIES

The Network Engineering program creates seamless education pathways into the Information Technology sector through strong partnerships with industry leaders who provide invaluable input. Industry leaders in the community not only help develop curriculum that is delivered through classroom instruction and dual enrollment courses, but also offer paid three-year internships. Student outcomes are measured relative to “real-world” expectations, which ensure an emphasis on professional skills, collaboration and problem-solving.

The goal is to fully integrate the workplace and the classroom, allowing them to become extensions of one another, and providing students with the academic and technical skills they will need to succeed in their careers. The learning competencies are evaluated regularly by university professors, school district instructors and local industry participants to support one of the most accelerated degree programs in the country.

As part of this program, students can participate in a three-year internship at one company. Rather than a progression of different placements, these internships operate much like an apprenticeship – allowing students to dive deeply into one company and see projects through their full life cycles. Over the course of three years, students learn invaluable technical and employability skills, and network with employers. By the time they graduate, most of the students have been offered jobs at their company. “These are 20-year-olds with zero student debt, getting entry-level jobs at sometimes \$65,000 per year salaries,” explains program director Elaine Metcalf. “Our students are able to enroll on bachelor degree programs before they even step foot off our campus.”

Students also participate in SkillsUSA, honing leadership and confidence skills through competitions and a yearly membership drive. Students have performed at the top level, earning gold and silver national awards in the Internetworking Competition.

Summit Technology Academy



EMPLOYING LOCALLY GROWN TALENT

Launched in the summer of 2012, this innovative program emerged after local businesses came together around the shortage of qualified talent in IT. Postsecondary and K-12 partners collaborated with businesses to identify key competencies needed in the field, creating a pipeline from classroom to employment. Advisory partners continue to identify and evaluate these key competencies on a regular basis, ensuring students receive cutting edge preparation.

More than 40 business partners, located throughout the Kansas City metropolitan area provide students with paid internships, tuition forgiveness, shared tuition, grant programs and low-interest student loan programs. Students often graduate with little to no student debt and high-paying employment offers, as well as college credit.

LOOKING TO THE FUTURE

The cybersecurity world is ever evolving and will only continue to grow in the coming years. In the future, the program plans to build out into computer forensics, data science, financial systems and the healthcare industry. "We have a strong healthcare program at the Academy," says Director Elaine Metcalf. "Imagine a student with a strong foundation in health-related sciences gaining these network engineering and IT skills. It can open a lot of doors. Students can combine skills and put together their own career paths."

PRESIDENTIAL PRAISE

President Barack Obama addressed a crowd at the University of Central Missouri in 2013 to speak about the MIC program as an example of innovation and collaboration: "That is exactly the kind of innovation we need when it comes to college costs," Obama said, "and I want the entire country to notice it. And I want other colleges to take look at what's being done here."

In addition to the MIC opportunity, students can also earn up to 15 hours of college credit from Metropolitan Community College in computer science through dual enrollment, which can transfer easily to any Missouri college and potentially other colleges outside the state.

"Students can dependably find valuable work right away, right here. We create and grow a talent pipeline that keeps to its roots. Graduates learn within the Kansas City work culture; we don't lose them to the coasts." – Elaine Metcalf, Director of Summit Technology Academy and Missouri Innovation Campus

Success by the Numbers



60%

Participated in Work-Based Learning



94%

Enrolled in Postsecondary and/or Entered the Workforce or Military



81%

Earned an Industry-recognized Credential



60%

Earned Postsecondary Credit