Photos by STEVEN LANE/The Columbian

Reese Holland, 18, works part-time at Frito-Lay. He got the job after completing an internship with the company that was designed to match his interest in math.

STEM spurs growth

Program brings together high schoolers, local firms

By AARON CORVIN
Columbian staff writer

It's easy to imagine a future in which Reese Holland lands a job with either a high-flying software company or a manufacturing giant.

Yes, the economy remains weak with little improvement on the horizon.

But, with a mind for math and a personality filled with determination, Holland, 18, who only recently graduated from Battle Ground High School, has already built up an impressive résumé.

He's racked up 105 credit hours at Clark College and won a part-time job with a major Clark County employer — all in the service of his twin goals of being self-sufficient and of obtaining a bachelor's degree in mechanical engineering at Washington State University Vancouver.

"I just know what I want in life," he said.

Connecting to the workplace

Last fall, Holland's long-term plans got a boost from a program that encourages young people to pursue careers in science, technology, engineering and math — subjects that experts have grouped into an acronym: STEM.

Run by Vancouver-based nonprofit nConnect, this particular STEM program links high school students from low-income families with area employers. The idea is to enable sophomores, juniors and seniors to apply what they're learning from their math and science teachers to real-world problems.

It's the kind of program that some experts nationally have said are crucial to preparing the U.S. workforce to compete in a global economy in which China and India are rapidly advancing in both education and technology.

Innovate Clark County is The Columbian's online community to connect entrepreneurs and others interested in fostering business innovation and growth in Southwest Washington. Join the conversation online at **www.columbian.com/innovate.**

Internship leads to job

While still a senior in high school, Holland completed his internship at Frito-Lay's Vancouver-based manufacturing facility, working 90 hours and receiving a $500 stipend. Under the supervision of Jason Studer, a packaging specialist for the company, Holland was tasked with making sure Frito-Lay's system of weighing and packaging its products ran as smoothly and as efficiently as possible.

The work entailed analyzing spreadsheets and punching in accurate numbers to properly run the company's equipment, Studer said. The company needed someone with a knowledge of mechanics, Studer said, and who "was able to deal and work with people fairly well, and have good communication skills."

Holland fit the bill. So much so, he eventually landed a part-time job with Frito-Lay cleaning the machines that handle the company's snack products.

Holland said he feels supported by everyone at Frito-Lay. He's learned the importance of being thorough, he said, and of working as part of a team. "Communication was a biggie," he said.

Holland, who recently graduated from Battle Ground High School, wants to obtain a mechanical engineering degree from Washington State University Vancouver.

Hopes of expansion

NConnect's STEM program, funded by part of a larger $2 million federal grant awarded to the Southwest Washington Workforce Development Council in 2009, will wrap up by the end of this year.

By then, an estimated 140 Southwest Washington high school students, including Holland, will have completed internships under the program, said Manlio Castillo, a science, technology, engineering and math coach for nConnect.

Clark County companies that have welcomed students into their workplaces as interns include Frito-Lay, Micropump, Reliance Investing and SEH America.

Castillo said the nonprofit hopes to secure more grants to continue the program and to attract more employers willing to provide additional financial support.

Indeed, the mission of

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nConnect, founded in 2005, is ambitious — to encourage high school students to take on more rigorous studies, such as advanced placement courses, to prepare them to become leaders and innovators in the global economy.

Greg Kulander, executive director of nConnect, said the nonprofit plans to expand its programs into middle schools.

"There's no question we have an impact," Kulander said of the nonprofit's programs. "We know it's working for some of the kids at least some of the time."

Focus on results

Kulander added that he wants to dig deeper on the impacts of the nonprofit's programs by setting up an evaluation system to measure results over time.

NConnect isn't alone in its mission. And the focus on science, technology, engineering and math isn't new. Nationally, some leaders in business, government and academia have pointed to the need to boost the U.S. workforce by preparing more people for employment in so-called STEM fields.

As an April 2007 report by the U.S. Department of Labor put it: "There is broad consensus that the long-term key to continued U.S. competitiveness in an increasingly global economic environment is the adequacy of supply and the quality of the workforce in the STEM fields."

When Reese Holland thinks about the future, he sees opportunities. He sees himself solving problems. "I like to see the results, or the improvements that I can make," he said.

For now, he's happy to have his college credits and a job. "I like earning my own money," he said. "I like that thought, that feeling of accomplishment. 'Hey, I can do this.'"

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