

STORY OF THE WEEK - DECEMBER 9, 2016

THE ROUNDUP

BY AND FOR THE STUDENTS OF HALF HOLLOW HILLS HIGH SCHOOL WEST

CRACKING THE CODE TO SUCCESS

Written by Nicole Rosenthal | Designed by Michelle Zhang

Gallery walls, robots and innovative digital programs: this isn't the future, but these students are on their way to landmark innovation.

This week, Half Hollow Hills Central School District students displayed their recent efforts in the Science, Technology, Math and Engineering fields at the HHH's *Night of Code* on December 5th, 2016. A focal point of the event was West Hollow's new MakerSpace, a unique creative space where students can gather to create, invent, and learn. The evening's agenda also included a gallery walk featuring over 50 unique exhibits and interactive displays as parents and students participated in lessons on coding, game design and more.

The significance of *Night of Code* "was to show - from the elementary all the way through to the high school - what we're doing and how we're growing," said AP Computer Science teacher Mr. Maroney. "[It's] to show what the kids are doing so they can reflect on and feel good about it."

"This *Night of Code* gave parents and children almost like a roadmap of the different activities they can partake in as they increase in grade level," said Senior Tatum Ogata. "It was meant to showcase all the neat things coding can do. Kids

were able to drive robots and see apps their peers made, so they could become excited about the possibilities coding has to offer."

By some estimates, just only one quarter of all K-12 schools in the United States offer high-quality computer science courses with programming and coding. As technology has evolved, the Half Hollow Hills School District has been making initiatives to strengthen coding concepts in order to prepare students for success in the job market, with additions such as the all-new AP Computer Science Principles course offered at the high school level, as well as beginning computer science basics at the elementary school level. "Computer Science changes at a very fast rate," said Mr. Maroney. "I'd say probably every 2-3 years we've added or moved around [courses] ... as technology has changed. We changed it last year, we changed it the year before, and we're probably going to change it again in two years."

Last year, Maheshwari started a Coding Club at Candlewood with the goal of teaching younger students to program. This year, with over 35 students registered for the Candlewood club, a teacher at West Hollow began a similar effort as well. Students are now learning how

to code as early as second grade with basic programming languages in order to grasp the fundamental concepts. "The goal is that, once these students reach high school, they will be able to take very high level courses."

But, in fact, the long-term effects of learning the language of computers will pay off long after AP tests are over.

In 2015, there were more than 600,000 high-paying tech jobs across the United States that were unfilled, and by 2018, 51 percent of all STEM jobs are projected to be in computer science-related fields. A recent salary survey from the National Association of Colleges and Employers found that STEM graduates were expected to earn the highest overall average salaries in 2016. New engineers, for example, are expected to earn nearly \$65,000 a year, which typically rise to \$167,100. With internet giants such as Google and Facebook fighting over the top software engineers in the country, the world of code is booming, and companies cannot hire fast enough.

Internet employment site Glassdoor lists more than 7,300 openings for software engineers, ahead of job openings for nurses, who are much-needed but in short supply. Nationally, the average base

salary for software engineers is about \$100,000, and \$112,000 for data scientists. A growing number of public colleges, such as the SUNY schools, have utilized a funding model that uses tuition “bonuses” to favor hard science and engineering degrees in order to keep up with the skyrocketing demand. However, computer science and data science are not only important for the technology world, but for a variety of industries including transportation, healthcare, education, and financial services.

“With today’s world, technology is integrated in everything we do,” said Mr. Maroney. “They have a list of the ... top 125-50 [most in-demand] jobs, and in the top 10, about 5 of them are always computer-science related. [Opportunities include] database management, cyber security, networking ... there’s a lot. That’s all computer science.”

“It’s going to be really difficult if you do not have a sense of technology and computer science. You’re going to have a tough time in the job market ... if you don’t have some kind of skill with those things. It’s a skill level that is required, I believe.”

In fact, even the national government is urging students to think about a career in the computer science field. During President Obama’s 2016 State of the Union address, he revealed Computer Science For All, a bold initiative to strengthen the incoming generation of American students with the com-

another goal of the initiative is to attract more women and minorities, as the most recent statistic shows that only 18 percent of computer science graduates in 2013 were women. In 2015, only 22 percent of students taking the AP Computer Science exam were girls, while only 13 percent were African-American or Latino students.

In the words of POTUS, “In the coming years, we should build on that progress, by ... offering every student the hands-on computer science and math classes that make them job-ready on day one.”

Careers in technology are fun, exciting, impactful and collaborative as well as being critical for our national growth, with more jobs required yearly as the tech industry continues to flourish. And, with a multitude of computer science-oriented classes offered at Hills West, such as game design, Lego

Robotics, and Computer Science Principles to name a few, students will have all the resources needed to aim for success.

“We use technology every day and it can be found in every field of study. It’s so ingrained in our society many don’t even realize the potential computers have,” concluded Maheshwari. “I think coding is the future.”

THE ROUNDUP

Holiday Art Contest

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DUE DATE: DECEMBER 16!

Paper or Digital artwork

Size: 8.5” x 11”

(for digital pieces: resolution should be 300 ppi)

Hand in hard copies to Mr. Doxsee in room 230 or email digital artwork to westroundup@gmail.com

Email any questions to westroundup@gmail.com

puter science skills necessary to succeed in the modern world. The initiative calls for an influx in federal spending towards teacher training and high-quality instructional materials, the creation of more accessible computer science programs such as AP Computer Science Principles, and engaging top industry leaders in deepening their commitments to computer science education. Yet