

*3rd Annual Career STEAMposium
Building a Stronger Future Workforce*

Sponsored by



Saturday, March 10, 2018
Pasadena City College

3rd Annual Career STEAMposium

The 3rd Annual Career STEAMposium took place on Saturday, March 10, 2018 at Pasadena City College. There were over **160** students in attendance at this year's event that exposed youth to professionals in STEAM Careers. Workshop Speakers shared their backgrounds and brought them forward to their current roles so students knew that they could also succeed in STEAM careers. A major message that was consistent throughout many of the workshops was that if you enjoy what you're doing, you'll never work a day in your life. Below is information on the Keynote Speaker, the workshops and the hands-on activities. The day was successful as youth expressed their interest in pursuing careers in STEAM areas.

Keynote Speaker

Dr. Soraya M. Coley – President, California State Polytechnic University, Pomona. Dr. Coley has brought a renewed energy level back to Cal Poly Pomona. She is a veteran administrator with more than 20 years of experience in higher education, and recently became the sixth president of Cal Poly Pomona in January 2015. Dr. Coley came to Cal Poly Pomona from Cal State Bakersfield, where she was the provost and vice president for academic affairs from 2005 to 2014. She served as interim vice president for university advancement in 2011-12. Her experience includes serving as Cal State Fullerton's dean of the College of Human Development and Community Service, as administrative fellow, and professor and department chair for the human services department. She was also the system-wide provost and vice president for academic affairs at Alliant International University, from 2001 to 2003. Dr. Coley has brought a mission to Cal Poly focusing on "The Future of Work and Human Engagement." Simply put, it is to promote integrative learning, discovery and creativity by establishing "centers for excellence" which will capitalize on the schools polytechnic identity, strengths and opportunities for discovery, innovation, research and creative expression.

Welcome, Dignitaries and Keynote Speaker



Senator Anthony Portantino



Asm Chris Holden



Councilmember Tyron Hampton



Gerald Freney, President
Tournament of Roses



Dr. Soraya Coley, President
Cal Poly Pomona

STEAM Workshops

Science

This engaging workshop was led by **Dr. Valencia Walker**, and **Dr. Kimberly Shine**. **Dr. Walker** is an Assistant Clinical Professor at the David Geffen School of Medicine UCLA. She is a practicing neonatologist with research interests focused on optimizing maternal-child health for local and international communities. As the Associate Medical Director of the UCLA Santa Monica NICU and Medical Director for UCLA Ronald Reagan Medical Center Newborn Nursery. Dr. Walker works as the physician champion for several projects designed to improve outcomes for the mother-infant dyad. She also travels to countries such as India, Guatemala, Tanzania and Haiti for medical mission trips. She has been dedicated to providing care for sick children and working in collaboration with local health officers to improve the medical infrastructure and help address the social, economic and health inequities within these countries. **Dr. Shine** earned her medical degree from USC Keck School of Medicine and completed a Master's of Science in Integrative Medicine from George Washington University. She is currently becoming certified in Functional Medicine through the Institute of Functional Medicine. She believes in individualized, patient centered, science-based approach that empowers the patient and the practitioner to work together to address underlying causes of disease and promote wellness. Her patients say, "Having Dr. Shine as my doctor is like having a doctor in the family." With two dynamic, successful female doctors leading this workshop, it was both creative and interesting.



Technology

This innovative workshop was led by **Lanny Smoot** and **Sharelle Jones**. **Lanny** is a Sr. Research Scientist at **Walt Disney Imagineering's Research and Development** organization. At Disney Research, he has helped create new 3D displays, robotic, and ride, systems. Lanny holds both Bachelor's and Master's Degrees in electrical engineering from Columbia University. He has earned more than 75 US Patents for his work. This is sure to be an exciting workshop that integrates technology with innovation and entrepreneurship. **Sharelle** is an administrator of Microsoft and Salesforce platform products at **City of Hope National Medical Center**. On weekends, she is a Hack-A-Thon challenger. At night, she's the co-founder of a Tech start-up that while in its infancy is already receiving acclaim. She is a cheerleader for technology at heart; an advocate for successful software - who primarily builds public and medical center websites and enterprise business applications. Sharelle is a graduate of Grambling State University and is internationally certified as a business analysis professional.



Engineering

This inspiring workshop was led by **Adaora Okwo Okoro, PhD** and **Keith Ward**. **Adaora** is a Senior Energy Market Specialist at **Southern California Edison**. She has a bachelor's degree in Operations Research & Financial Engineering from Princeton University and a PhD in Industrial & Systems Engineering from the Georgia Institute of Technology (Georgia Tech). She is excited to share how the power of math and engineering can help solve business problems. **Keith** is co-owner of Leading Systems Technology (LST), a company that focuses on breaking things in the lab so they do not break in the field. Keith received his Bachelors of Science Degree in Electronics/Computer Engineering Technology from Indiana State University. Keith has smartly taken advantage of opportunities afforded him to build a successful career and then start his own engineering company. He is grateful for his success and holds his hand out to those that are coming behind him. This was an inspiring workshop where the students learned how engineering can take you in many different and exciting career directions.



Arts

This creative workshop was led by **Dartayous Hunter** and **Dexter Tanksley**. They will highlight how STEM skills are used within artistic and entertainment industries. **Dartayous Hunter** is a Digital Composer, the process of digitally assembling multiple images to make a final image, who has worked on a variety of movies and TV Shows. Some of his work can be seen in The Flash (TV Series), Legends of Tomorrow (TV Series), Super Girl (TV Series), Star Trek: Into Darkness, Green Lantern, Star Wars: Episode 1 The Phantom Menace, and much more. **Dexter** is a Disney Imagineer and Senior Project Manager in the Project Management Portfolio responsible for translating the ideas of the creative team into dimensional attractions and rides at Disney theme parks worldwide. This includes working with professionals from a variety of disciplines – from writers to artists and engineers – to understand and manage creative concepts from ideation through final construction. He earned his Bachelor's Degree in Architecture at Hampton University. He is an associate member of the American Institute of Architects. This workshop was entertaining and informative where the students learned how artistry meets technology.



Math

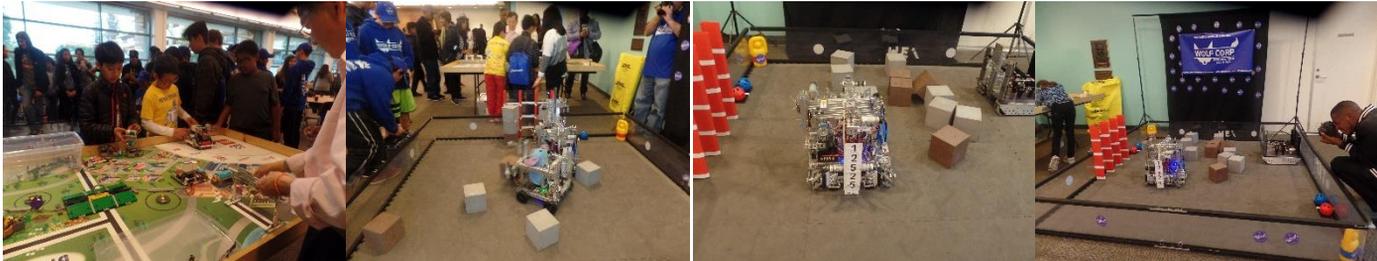
This exciting workshop highlighted how a solid foundation in Math will take you far in life. It was led by **Michael Lewis**. **Michael** is the Branch Manager at the Monrovia location of Wells Fargo Bank. He has a Bachelor of Arts Degree in Philosophy from University of California Riverside. Through his extensive career in the Financial Industry, Michael has acquired many skills that help him to successfully lead his team. Michael is committed to making a difference in the communities that he serves and conducts workshops to improve financial literacy and help people to achieve their financial objectives. Michael shared how he has used his Math Skills to enjoy exciting, changing careers in the Financial Industry.



Hands-On Activities

Robotics – RoboTitans, Wolf Corp & Droidnoughts

Students had the opportunity to use 2 controllers to remotely and collaboratively operate a robot to: 1) navigate the game field, 2) used clamps to grab one or more cubes, 3) transported cubes, 4) used the clamps and lift mechanism to stack cubes into a shelf structure to complete rows and columns, and 5) drove onto a balancing platform. They also shared a First Tech Challenge robot game with those that stopped by the booth.



Virtual Reality – AT&T - Amir Johnson

The IT CAN WAIT virtual reality simulator provided audiences with an immersive, 360° experience that showed the potentially deadly consequences of smartphone distracted driving. Drivers will be seated in with the virtual reality goggles on their head. The goggles played a video experience that mimiced distracted driving. Texts appeared in the image of the phone in the corner of the video seen through the goggles. The video simulated the movement of the eyes-off-the-road and hands-off-the-wheel experience of texting while driving, causing the vehicle to swerve.



Dr. Christopher Sistrunk & Dr. Stanley Hooker highlighted how Precision Medicine recognizes that each individual's disease is unique and that the approach to their treatment is unique as well. Very exciting advances in the last few years have allowed City of Hope to better define ideal therapies for patients. City of Hope is at the forefront of precision medicine to treat cancers that affect humanity. This activity helped participants to understand precision medicine by shedding a light on how medicines are developed today and how medicines will be created in the future.



Formula SAE – Cal Poly Pomona

Formula SAE is a collegiate design competition providing University students with the challenge to conceive, design, fabricate and compete with a small formula-style racing car. SAE (Society of Automotive Engineers) sanctions FSAE through specific rules and regulations that encourage students to test their knowledge, utilize their creativity, and implement innovation. Cal Poly Pomona has their Formula SAE car on display. They discussed how they have studied the dynamics of multiple Engineering areas to build a Formula Race Car and win competitions!



Networking with Speakers

During lunch, the workshop and hands-on activities presenters sat at a table. The attendees decided who they wanted to spend more time with to ask questions and network.



Summary

The 3rd Annual Career STEAMposium was a day of learning and inspiring our youth to explore careers in STEAM. The Gamma Zeta Boule Foundation and the Pasadena Chapter of Alpha Kappa Alpha Sorority, Inc. are very thankful to all of our Sponsors, Workshop Presenters, Hands-On Activities Sponsors and Volunteers for supporting a beautiful day for our youth. Feedback on the evaluations is positive and many stated that they are interested in pursuing careers in STEAM.



STEAM Builds a Stronger Future Workforce

The 3rd Annual Career STEAMposium was an overwhelming success. Everyone from the students to the presenters to the parents and the organizations that sponsored the event could not help but get caught up in the excitement in the room as students talked to, learned from and did hands-on activities in the areas of Science, Technology, Engineering, Arts and Math (STEAM). The Career STEAMposium focuses on exposing middle school through community college students to professionals that are currently in STEAM careers.

STEAM pervades every part of our lives and career opportunities in these areas are growing by about 14% per year. In order to be gainfully employed, it is important to have skills that people are willing to pay to gain access to. STEAM professions are the jobs of today and the future. Many high paying jobs in these areas continue to go unfilled because there is a gap between workforce skillsets and job requirements. If we want to close this gap, we need to encourage our future workforce to pursue careers of the future which are in STEAM.

The Career STEAMposium kicked off the day with Dr. Soraya Coley, President of Cal State Polytechnic University, Pomona, telling the attendees that “The jobs that you are going to have in the future have not been created yet.” That is a strong statement that highlights how fast things are moving forward and why it is important to participate in this fast moving future by gaining STEAM skills. This includes understanding that our youth will need the ability to take detours and turns as they prepare themselves for a future of engagement where they can leverage their gifts and talents to make the world better. They will also need to make a commitment to being lifelong learners.

As the students attended interactive workshops in each area of STEAM, they learned about the background of the presenters, how they have overcome obstacles in their lives and what their professions are today. There was a recurring theme among the presenters of, “If you enjoy what you’re doing, you will never work a day in your life.” Dexter Tanksley, Disney Imagineer & Sr. Project Manager, told the students, “Think about what your Mom & Dad don’t have to tell you to do. You should then look for careers that are available in those areas.” In essence, if you enjoy playing video games, what careers are available in these areas? What are the skillsets required?

The students also got a chance to do some Hands-On Activities in the areas of Precision Medicine sponsored by City of Hope, Virtual Reality sponsored by AT&T, Formula SAE Car sponsored by Cal Poly Pomona and Robotics sponsored by RoboTitans, Droidnoughts & Wolf Corp. Each of these activities gave the students the opportunity to learn while they enjoyed the activities.

As the day came to a close, the attendees enjoyed lunch with a presenter of their choice where they continued to ask questions and learn from them. By the end of the day, the students provided positive feedback and were excited about the exposure that the program had offered them. Many said that they are now interested in pursuing careers in various aspects of STEAM.

This event that prepares our workforce of the future for the jobs of the future was sponsored by Southern California Edison, The Boeing Company, Pasadena City College, the Gamma Zeta Boule Foundation, the Pasadena/Altadena Ivy Foundation and the Pasadena Chapter of Alpha Kappa Alpha Sorority, Inc.