6th Annual Career STEAMposium

Perseverance Powered by STEAM

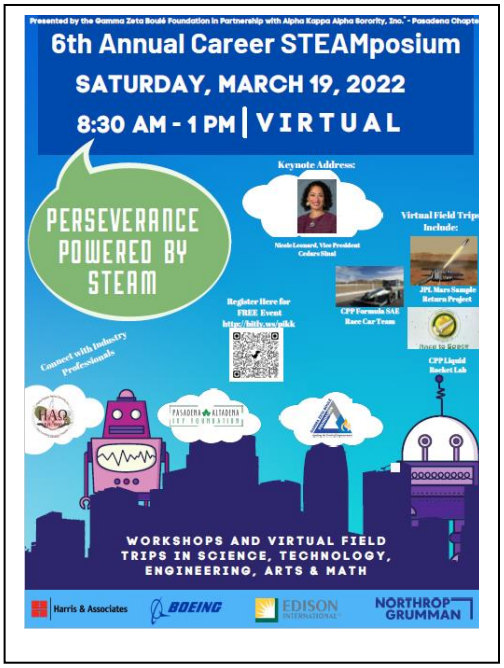
Gamma Zeta Boule Foundation

Pasadena/Altadena Ivy Foundation

Alpha Kappa Alpha Sorority, Inc. – Pasadena Chapter

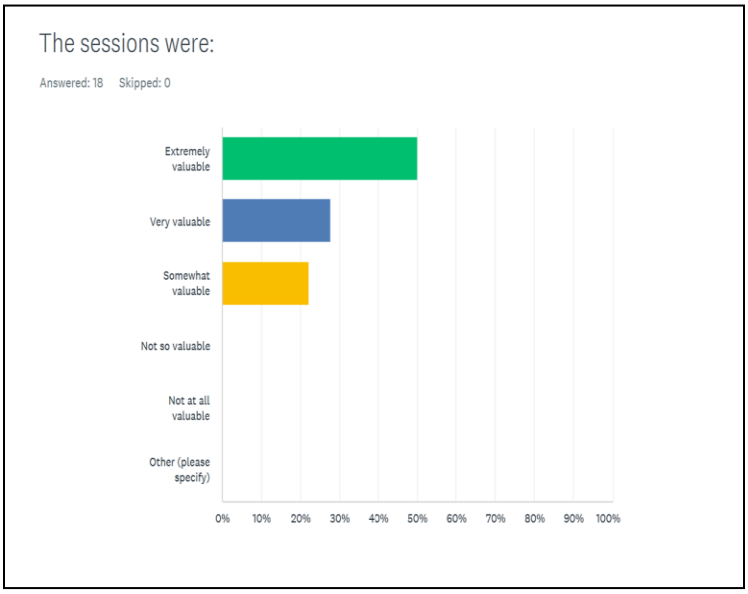
Sponsored by

6th Annual Career STEAMposium



The 6th Annual Career STEAMposium virtually took place on Saturday, March 19, 2022. The theme for this year's event was **Perseverance Powered by STEAM**. Ironically, the theme describes this year's event. The original plan was to go back to in-person, but the Omicron variant kicked up so we had to do a virtual event for another year. Despite everyone being COVID tired, we had over 230 registrants where not all made it to the actual event. This event exposed middle school, high school and community college students to professionals in all aspects of STEAM through five workshops and five Virtual Field Trips. Workshop Speakers shared their backgrounds and brought them forward to their current roles so students knew that they could also succeed in STEAM careers. The students enjoyed Virtual Field trips that took them on multiple journeys.

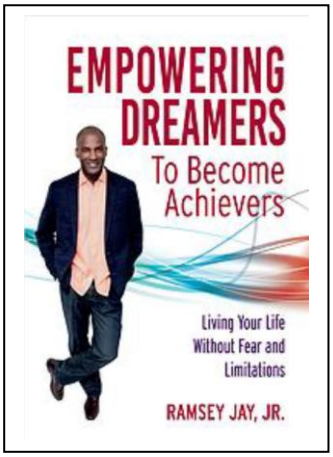
Students were made aware that "we" need them to follow STEAM disciplines to solve the greatest problems. **Perseverance Powered by STEAM** has led us through the many twists and turns of COVID over the last two years. STEAM has taken us to Mars. STEAM makes the perfect guitar. STEAM touches us all in multiple ways every day.



While we had a smaller group than planned, those that attended enjoyed their experience and time with the STEAM professionals. They each learned a lot and were fired up and ready to go! The day was successful as attendees enjoyed the workshops, the keynote speakers and all the virtual field trips. Many students commented on how they enjoyed the sessions and appreciated how knowledgeable each speaker was on their topic. At the end of the day, they were Likely to Very Likely to recommend this event to their friends. Some direct quotes in the evaluations were:

- "Students were able to visit multiple rooms to hear presentations."
- "The passion and expertise of the presenters."
- "The topics were very well presented."
- "I liked learning about different aspects of STEAM."
- "The virtual field trips."
- "I liked the visuals."

Motivational Speaker – Ramsey Jay, Jr.



The day kicked off with a Motivational Speech by Financial Executive turned Entrepreneur, **Ramsey Jay, Jr**. Mr. Jay, Jr. is a distinguished Wall Street trained finance executive and dynamic speaker. His decade of global investment management experience includes expertise in high yield bonds, bank loans, distressed credit, private debt and private equity. He consults in the areas of organizational development and leadership development.

He got the audience *Fired Up and Ready to Go* as he challenged the students to ACIPA (Absorb, Challenge, Internalize, Practice and Apply) the information from the speakers throughout the day.

Keynote Address

Nicole Leonard, Vice President and Associate Dean of Research and Education for Cedars-Sinai – Topic: **A Career Journey from Humble Beginnings….**

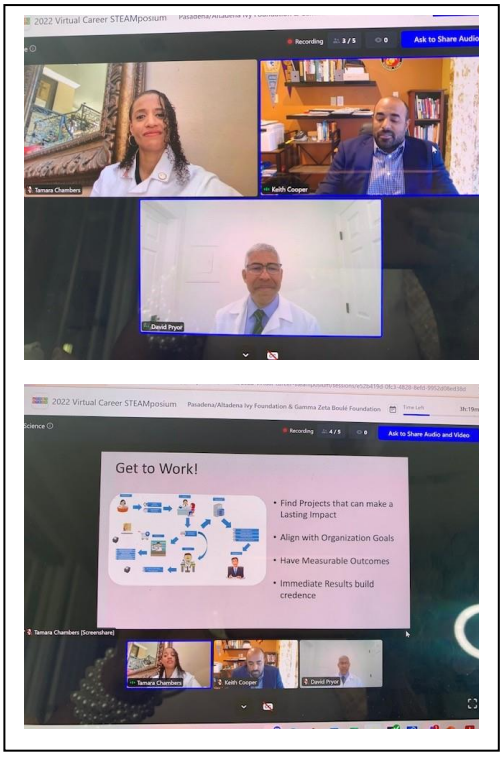
Nicole Leonard - Vice President and Associate Dean of Research and Education for Cedars-Sinai https://www.cedars-sinai.edu/research/administration.html, is dedicated to improving human health by catalyzing interdisciplinary initiatives which also drive diverse revenue streams. She thrives in organizations where the best minds, intellectual curiosity, and deep expertise address unique problems and strive for innovative solutions. She brings her diverse experience to weaving connections among disparate pieces and working in new areas of investigation. Thoughtful in approach and collaborative in execution, Nicole is both an idea generator and effective leader in evolving organizations. She is a continuous learner who finds opportunities to move the needle while at the same time staying laser focused on the mission and vision. She describes herself as a "Mission driven servant leader."

In her keynote address, she shared her 3 Key Principals: 1. Learn about everything! 2. Prepare! Prepare! Prepare! 3. Do your best! She encouraged students to be curious. If you don't know what you're interested in, sign-up for everything so you can learn and figure it out. Because the Roles of the Future are unknown today, focus on figurative preparedness today. Develop your soft skills by leading & motivating, navigating politics and persuading & influencing people to follow you. Ultimately, the world is your oyster so learn, do your best and prepare. Build your skills by volunteering, talking to people and getting mentors.

Workshops

Science Workshop

This engaging workshop was led by **Tamara Chambers, MD FACS** and **Keith Cooper**

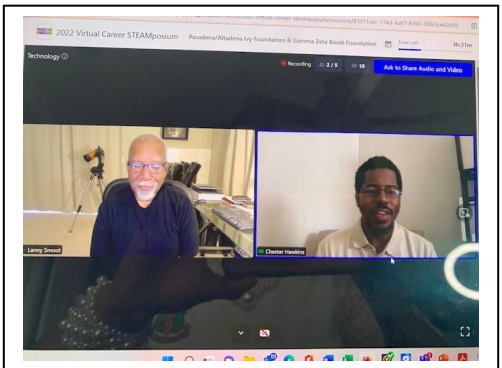


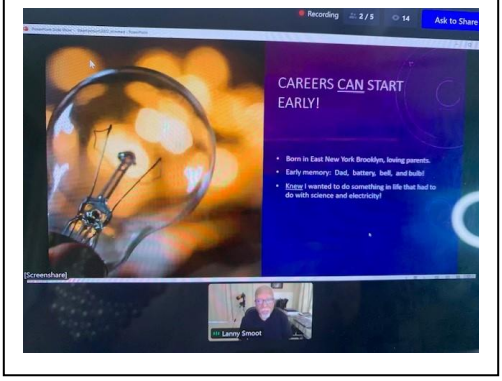
- **Tamara Chambers, MD FACS** – Dr. Tamara Chambers is the Chief Medical Director of Otolaryngology-Head and Neck Surgery, Speech and Audiology at LAC+USC Medical Center. She also serves several other administrative roles, including the Associate Medical Director for Clinical Efficiency, Associate Director of Perioperative Services, and Assistant Designated Institutional Official for Safety, Fairness, and Equity (SAFE). Finally, she is an Associate Professor and the Associate Program Director in the USC Caruso Department of Otolaryngology-Head & Neck Surgery. She earned her undergraduate degree from Stanford University and received her medical degree from the Drew/UCLA Medical Education Program. She primarily works with residents at the Los Angeles County + University of Southern California Medical Center, where she previously completed her residency.

- **Keith Cooper** – Founding Principal at Environmental Review Partners, Inc (ERPinc), an environmental planning and consulting firm. Prior to founding ERPinc, Keith was employed as an environmental planning consultant for 23 years where we worked on projects such as the LA Live development in downtown Los Angeles and the Metro Expo Line rail transit project. Keith graduated from California State University Dominguez Hills with a BS in business administration/accounting. Immediately following college, he was employed by Hawthorne Savings Bank as a construction loan administrator for two years. Realizing that accounting was not his passion, Keith continued his education by earning an MA degree in urban planning from UCLA. At ERPinc, Keith evaluates how urban development and infrastructure projects effect air quality, climate, and energy resources using a variety of software applications that include simulation modeling. When Keith is not working, you can find him cooking, spending time with his Boston Terrier, and/or traveling.

<u>Technology Workshop</u>

This innovative workshop was led by **Lanny Smoot** and **Chester Hawkins.**



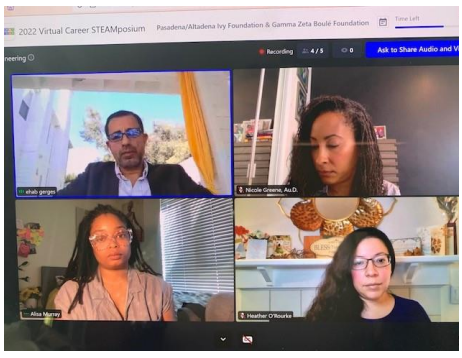


Lanny Smoot is a Sr. Research Scientist at Walt Disney Imagineering's Research and Development organization. Lanny has held leadership positions in telecommunications research at Bell Labs, Bellcore, and Telcordia. At Bell, among other things, he designed some of the first fiber optic, and video-on-demand systems. Lanny spent 10 years in Walt Disney Imagineering's Research and Development organization where he led R&D groups that focused on innovative sensing techniques, human computer interaction, robotics, imaging, and special effects systems for the Disney Parks. At Disney Research, he has helped create new 3D displays, robotic, and ride, systems. Lanny holds both a Bachelor's and Master's Degrees in electrical engineering from Columbia University. He has earned more than 100 US Patents for his work. This is sure to be an exciting workshop that integrates technology with innovation and entrepreneurship. A consistent theme delivered to the students in this workshop was to find something that you love to do and focus on that.

Chester Hawkins graduated from Loyola Marymount University with a BS in Computer Science. Chester currently works for NASA JPL where he is a Senior Software Systems Engineer a working on the current mission to Mars Project. He loves technology and keeping up with the latest tech news. When Chester's not at work, you can find him making mobile apps as well as teaching a team of middle school kids how to build and program robots in order to compete in the national Botball competitions.

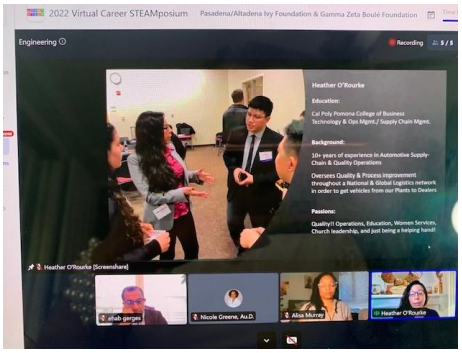
Engineering Workshop

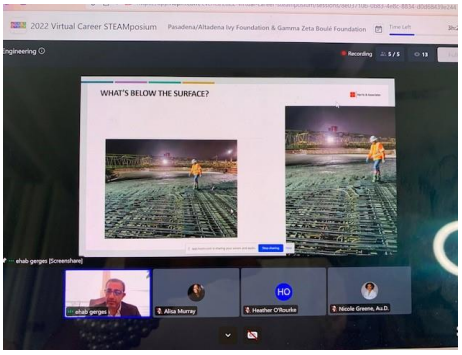
This inspiring workshop was led by **Heather O'Rourke** and **Ehab Gerges.**



Heather O'Rourke is a Logistics Quality Engineering Supervisor. Mazda North America Operations. Education: Technology & Operations Mgmt. Cal Poly Pomona College of Business. Core Competencies: Lean Processing, Quality, Operations/Supply Chain, Gemba, leadership. Background: 10 years of Automotive experience in Quality Operations for Parts and Finished Vehicles at Field, Regional, National and Global levels. Passions: Quality, Operations, Business, Education/Students, Women Services, church affiliated leadership; being a helping hand.

Ehab Gerges – Ehab Gerges is a Senior Vice President with Harris & Associates, a consulting firm that is focused on improving communities and creating better places to live through smart, safe, and sustainable solutions. Ehab has over 30 years of professional consulting experience in helping California government agencies build infrastructure projects. He graduated from California State University, Long Beach with Bachelor of Science in civil engineering. He is a licensed civil engineer in California. Ehab started his career in the consulting industry as a designer, working on roadway, drainage, and utility projects. He held many positions throughout his career leading design and construction teams take part in delivering landmark projects throughout California. He is currently leading the firm in delivering the first phase of High-Speed Rail project in California. When Ehab is not at work, he enjoys spending time with his family in the outdoors, learning about world history, and traveling around the world exploring different cultures.

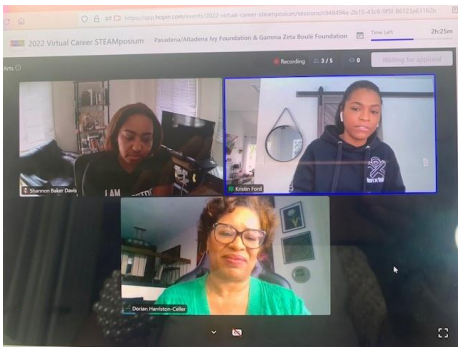


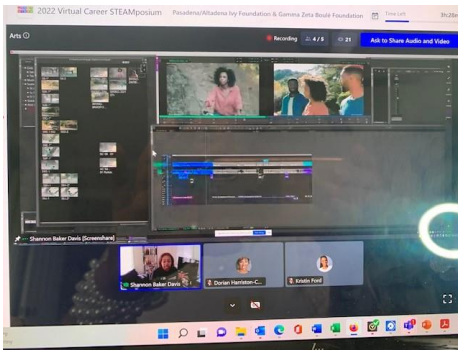


Arts Workshop

This creative workshop was led by **Kristin Ford** and **Shannon Baker Davis**. They will highlight how STEM skills are used within artistic and entertainment industries.

Kristin Ford is the Co-Founder and Director of Media for Creative Branding Agency– TenX Talent Inc. Kristin has vast experience in entertainment journalism, branding, and partnerships. She attests her achievements to her education and community involvement. Kristin says her motivation for working hard is to break barriers and become a gateway for future leaders no matter what industry they chose. Kristin received her B.S. in Public Relations from Eastern Illinois University in 2012. She worked for Nike Inc. as the Digital and Sportswear Lead; product/brand development, media tracking, crisis management, social media handling, event production. While with Nike Inc. Kristin worked firsthand with FLOTUS, Michelle Obama's, styling team for the 2013"Let's Move" campaign. Kristin also emceed for special launch events where she interviewed celebrities such as, Skylar Diggins (WNBA), Elena Delle Donne (WNBA), Shawn Johnson Olympian Gymnasts) and Jeanette Jenkins (Olympian Trainer). In 2017, she single-handedly produced her first event, "Leveling Up - Building a Stronger HER" women's luncheon. With a panel of 6 successful entrepreneurial women, all in a different field, attendees received advice, and learned ways to take their brand to the next level. She has been featured in the Windy City Cosmo and Voyage LA blog.



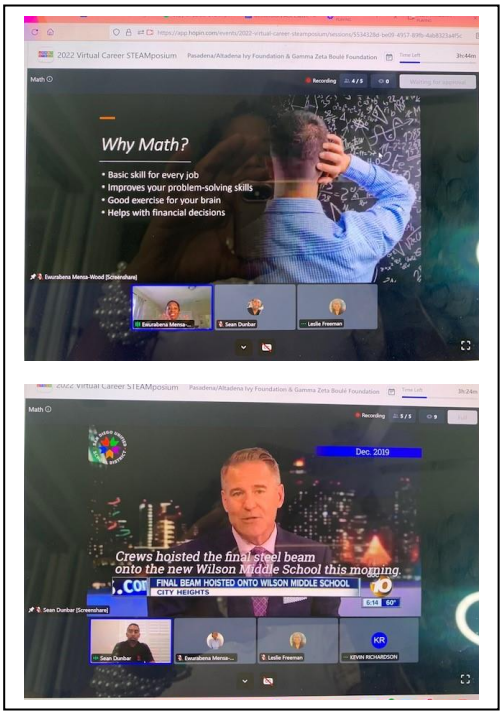


Shannon Baker Davis is an award-winning television and film editor, who began her career in New York, editing unscripted shows and documentaries. After 10 years working on many iconic and Emmy-winning shows such as Top Chef and Project Runway, Shannon

began adding narrative television and feature films to her resume. Her credits include Insecure, from Issa Rae, Grown-ish, a spin-off of the highly acclaimed series, Black-ish, from creator, Kenya Barris and Queen Sugar, from creator Ava DuVernay. In features, she edited Armstrong and The Weekend from director, Stella Meghie. Next, she cut the feature, The Obituary of Tunde Johnson, directed by Ali LeRoi (creator, Everybody Hates Chris), which premiered at TIFF and was released theatrically in February of 2021. Shannon reunited with Stella Meghie on The Photograph, starring Issa Rae and LaKeith Stanfield, and then went on to cut the Netflix series #blackaf, created by Kenya Barris, which stars Barris and Rashida Jones. Her latest work is Impeachment: American Crime Story for Ryan Murphy Television. Her series and film credits run the gamut, from funny to heartbreaking, provocative to visual-effects-heavy and action-packed. She is a member of ACE, where she is a mentor in their Diversity Mentorship Program. She serves on the Motion Picture Editors Guild Board of Directors, where she is also the Co-chair of the African American Steering Committee, and she is a founding member of Ujima Entertainment Coalition and Black in Post.

Math Workshop

Math is the foundation for everything. This workshop was led by **Ewurabena Mensa-Wood** and **Sean Dunbar.**



Ewurabena Mensa-Wood Coker Operating Assistant, where she is responsible for the safe and reliable operation of the Coker unit at the Chevron El Segundo refinery. She joined the Chevron Corporation in 2013, and has held various leadership positions in the Operations, Technical and Maintenance & Reliability organizations. She spent 11 years in the Nuclear Industry where she worked in numerous engineering roles at the San Onofre Nuclear Generating Station. Ewurabena has a passion for aviation and is a licensed private pilot. She holds a Bachelor's in Aerospace Engineering from Queen Mary College, University of London, and a Master's in Engineering with emphasis in Mechanical Engineering from California State Polytechnic, Pomona. She also holds a Professional Engineering (Mechanical) license. She was recognized in May 2019 by the Los Angeles Council of Black Professional Engineers as one of the 50 Phenomenal Black Women in STEM. Ewurabena left the students with Why Math is important:

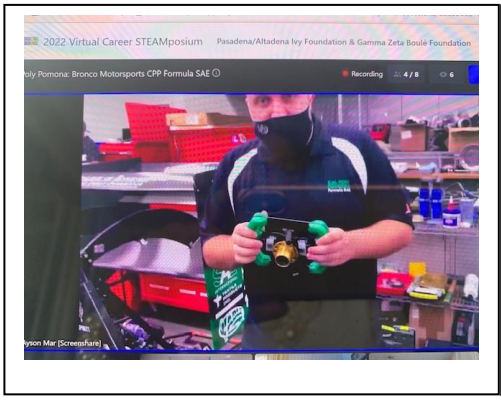
1. Basic skill for every job.
2. Improves your problem-solving skills
3. Good exercise for your brain
4. Helps with financial decisions

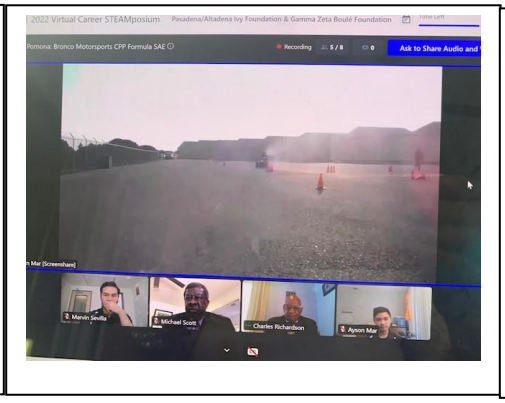
Sean Dunbar – Vice President of Education, Project Management/Construction Management (PMCM) San Diego & Los Angeles and currently employed at Harris & Associates. Sean is a graduate of Saint Mary's College of California. He attended Saint Mary's on an athletic scholarship. Upon graduating from college, Sean retired his baseball cleats and completed an Associate's degree in Carpentry from Los Angeles Trade Technical College. He began working as a general contractor soon after. To increase his knowledge in the field of construction, Sean furthered his education by attending UCLA's Construction Management Extension program and focused his efforts on Management in the industry. Sean has held many positions in Management, beginning as a Project Scheduler, Scheduling Manager and eventually

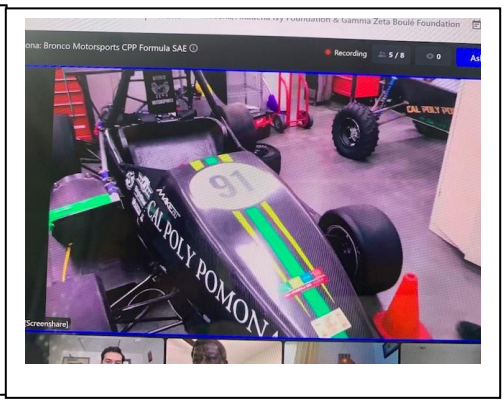
as a Project and Construction Manager. Sean was named Director within the Education Division and managed many projects, clients, and direct reports. Most recently, Sean has been named Vice President of Education for PMCM. Sean enjoys building school projects particularly in urban areas, allowing generations of young learners to thrive in state-of-the-art facilities.

Virtual Field Trips

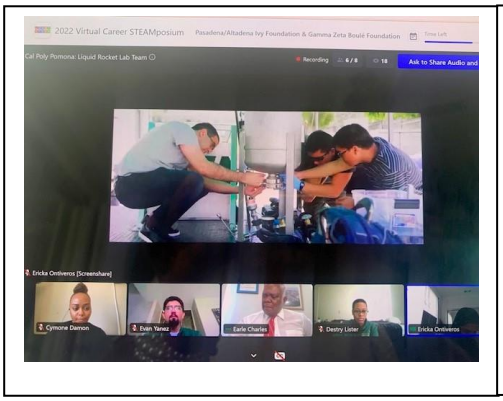
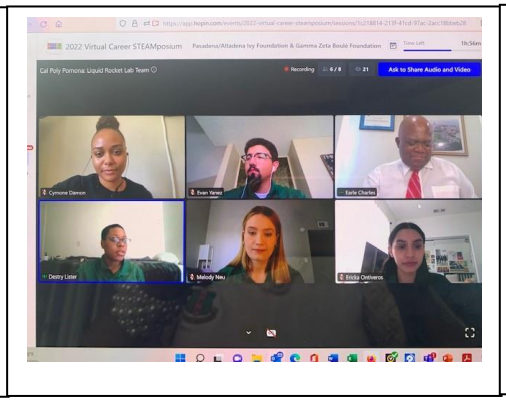
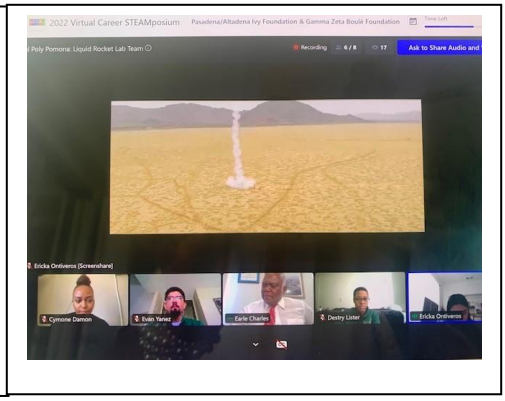
Cal Poly Pomona: Bronco Motorsports CPP Formula SAE is a collegiate design competition providing University students with the challenge to conceive, design, fabricate and compete with a small formula-style racing car. SAE (Society of Automotive Engineers) sanctions FSAE through specific rules and regulations 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!



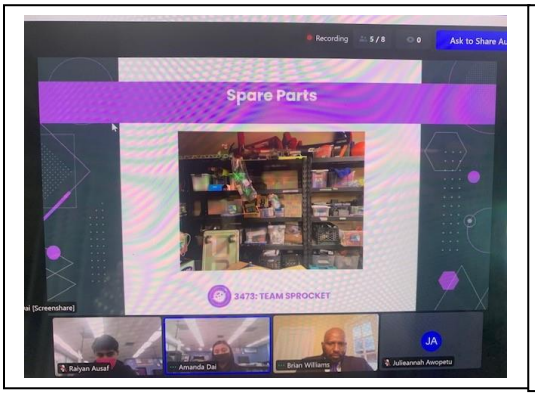


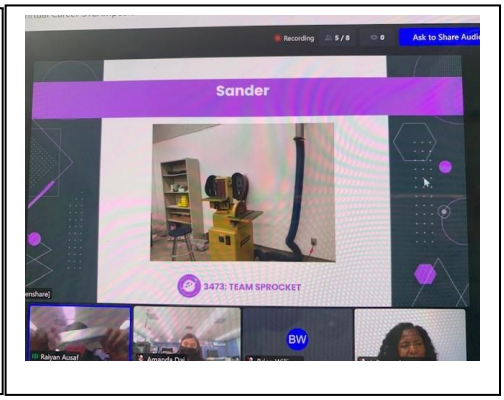


Cal Poly Pomona: Liquid Rocket Lab Team: The purpose of the Cal Poly Liquid Rocket team is to establish a Liquid Rocket Lab to expose students to the advancement of design and educational practices in both liquid rocket propulsion and structural design. They also provide current and future generations of engineering students consistent and evolving access to a means of designing and testing liquid rocket engines. Their presentation at the Career STEAMposium showed a video and introduced those that attended to Team Rocket. They shared their experience working together to design and build this award-winning Amateur Rocket.

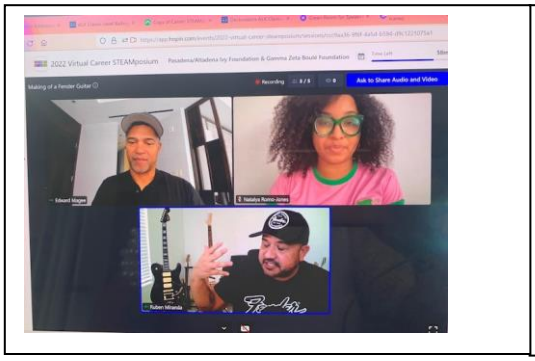




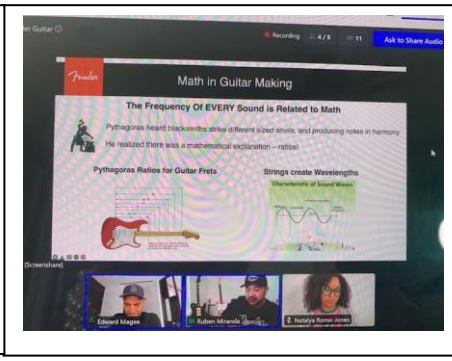
Diamond Bar High School Robotics Team "Team Sprocket" is an aspiring robotics team from Diamond Bar High School in Los Angeles, California. Team Sprocket is a quickly advancing team that is making a difference in the school, community, and broader society. Since their debut in 2011, their team has taken the necessary steps to create unique opportunities for our dedicated members. They also support STEM in the community and form connections with sponsors to spread the reach of FIRST Robotics and the importance of STEM in the modern world. The theme of their video was "**How Robotics Works**": They featured what Team Sprocket wanted students to know about Robotics. Not just how to build one but the whole process. They talked on how to keep students engaged, hear from some of the students on how they got into it and what they do, and use the video as a tool to celebrate the entire robotics experience.



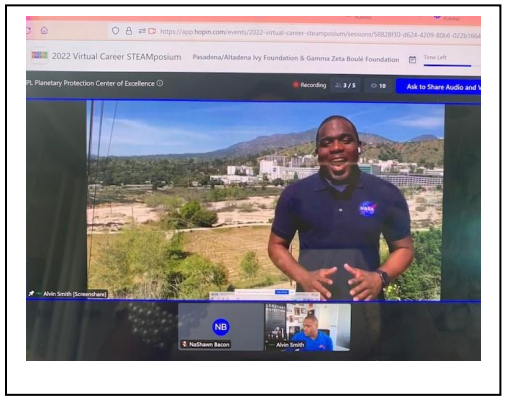


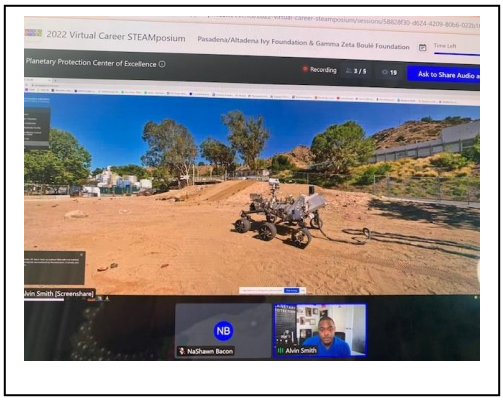
Making of a Fender Guitar -Ed Magee – Math is Music to Our Ears –Ed Magee brings over 25 years of diverse work and life experience to his current role as Senior Vice President of Operations at Fender Musical Instruments Corporation (FMIC), one of the world's leading musical instrument manufacturers. Mr. Magee took students on a journey through the making of a Fender guitar using both video and Q&A. Fender decided to bless two enthusiastic and lucky attendees with Fender guitars!

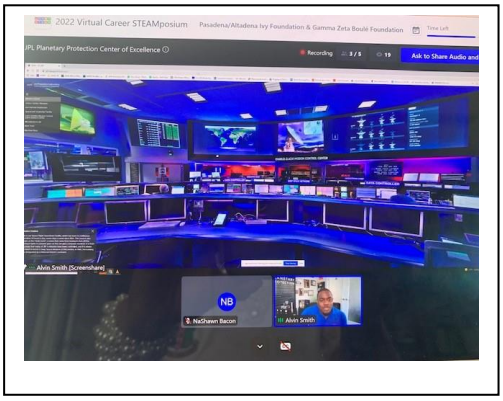


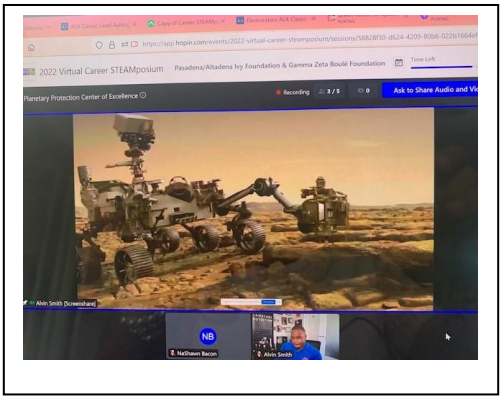


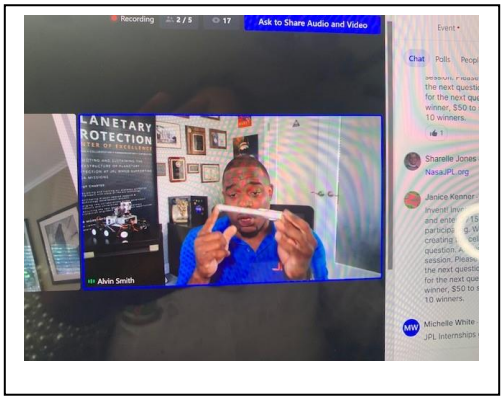
JPL Planetary Protection Center of Excellence - Dr. Alvin Smith, Manager is Jet Propulsion Laboratory's Lead Planetary Protection Engineer for Backwards Contamination for **Mars Sample Return** and Manager for the JPL Planetary Protection Center of Excellence (CoE). In these roles he provides scientific oversight to several research & development projects to meet stringent engineering requirements for planetary protection, as well as program management for training programs, university outreach, and interagency collaborations. This activity will feature a representative from JPL that will highlight the **Mars Sample Return Project** that is currently in progress. He will share a video and answer questions on this remarkable project where the data that is being collected today won't be seen for years. If you are a student going into the field of astro-physics, biological engineering today, you will be the ones that will take the information gathered and determine the impacts to life as it will be known at that time.











6th Annual Career STEAMposium - Press Release – Final

PERSEVERANCE POWERED BY STEAM

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Ramsey Jay, Jr was the Motivational Speaker, and he got the audience *Fired Up and Ready to Go* as he challenged the students to ACIPA (Absorb, Challenge, Internalize, Practice and Apply) the information from the speakers throughout the day.

Nicole Leonard was the Keynote Speaker, and she shared her 3 Key Principals: 1. Learn about everything! 2. Prepare! Prepare! Prepare! 3. Do your best! She encouraged students to be curious. If you don't know what you're interested in, sign-up for everything so you can learn and figure it out. Because the Roles of the Future are unknown today, focus on figurative preparedness today. Develop your soft skills by leading & motivating, navigating politics and persuading & influencing people to follow you. Ultimately, the world is your oyster so learn, do your best and prepare. Build your skills by volunteering, talking to people and getting mentors.

The STEAM professionals shared many words of wisdom as they shared their backgrounds and brought them forward to their current roles so students knew that they could also succeed in STEAM careers. The students enjoyed Virtual Field trips that took them on multiple journeys that included Cal Poly Pomona Rockets and Cars that students built for competition, Robotics offered by Team Sprocket from Diamond Bar High School, The Making of a Fender Guitar and NASA JPL's Mars Perseverance project.

Feedback from students included the following comments - "The topics were very well presented." and "I liked the virtual field trips."

This event that prepares our workforce of the future for the jobs of the future is presented by Alpha Kappa Alpha Sorority, Inc. Pasadena Chapter, Gamma Zeta Boule Foundation and the Pasadena/Altadena Ivy Foundation. The sponsors for this event are Edison International, Harris & Company, The Boeing Company and Northrop Grumman.