

Spring 2020



# Synopsys Championship

Celebrating 61 Years of Student Science



**Welcome from Katherine Naszradi**

President, Synopsys Outreach Foundation

## Welcome to the 2020 Synopsys Championship - you made it!

The big day is here! We know it takes an incredible amount hard work and perseverance to make it to the fair and we would like to congratulate you on making it this far. Through your months of dedication and exploration, you have shown yourself to be some the brightest young minds of Silicon Valley. We can't wait to see what you have to show us here today, and what you will achieve in the years to come.

When possible, I would encourage you all to visit other's projects and ask questions. This is a day you won't soon forget, and by continuing the exploration process, you will only make this experience all that more fulfilling. The key to success is to never stop the learning process.

Today, we are extremely grateful for everyone who works tirelessly to make today a success. From the organizers, the judges, the parents, the volunteers and the teachers -- all these incredible people come together every year to make this event happen and we are thankful for their herculean efforts. Special thanks goes to the Santa Clara Valley Science & Engineering Fair members -- for all their years of hard work and dedication to the students of Santa Clara Valley. Congratulations on your 61st year!

Our mission is to  
awaken more  
students to the wonder  
and power of science,  
technology,  
engineering and  
mathematics (STEM).



## CELEBRATING

**the 50th Anniversary of the Apollo 11 Lunar Landing &  
First Man on the moon, Neil Armstrong. July 20, 1969**



photo source: [hq.nasa.gov](http://hq.nasa.gov)



photo source: [worldatlas.com](http://worldatlas.com)

# Intel International Science and Engineering Fair

ISEF 2019 was held in Phoenix, and marked the end of Intel's 20-year sponsorship of the event and supporting programs and donations. We had comfortable weather, and the large group (16 students representing 10 projects-go teams!) became quick friends. After arriving and we meeting up with other California students. Monday we finish setting up boards, checking in with display and safety, we had a bit of a break on Tuesday at the Diamondback baseball game (science of baseball included).

Judging on Wednesday is six hours, with a break for lunch. After judging there is a party for all participants with public viewing on Thursday, later, a group dinner in a former church for some fabulous tacos, before attending award ceremonies.

It is always exciting to see our students get called to the stage, and this year did not disappoint with one of our own getting to be showered by confetti as an Intel Foundation Young Scientist Award Winner! We'd like to take this opportunity to thank Regeneron for coming on board as the new ISEF sponsor! - Heidi Black



## 2019: FIRST ALL FEMALE SPACEWALK

Astronauts **Christina Koch**, an electrical engineer, and Dr. **Jessica Meir**, a marine biologist, ventured outside the International Space Station in the first all-female spacewalk. Both Koch and Meir are Girl Scouts alum and the Girl Scouts celebrated them by sharing messages of support. Koch and Meir replaced a faulty battery charge/discharge unit and have been training for their mission for the past six years. Koch arrived on the International Space Station on March 14, 2019 for her first spaceflight mission and remained on the ISS until Feb 6th, 2020, which makes her time on the station, 328 days, the longest single spaceflight by a woman. In the 11 months that she was aboard the ISS, she orbited Earth 5,248 times, traveling 139 million miles, or roughly the equivalent of 291 trips to the Moon and back.

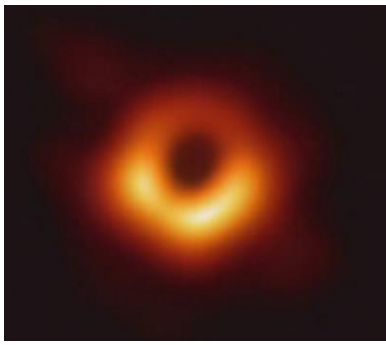


photo: jpl.nasa.gov

## FIRST BLACK HOLE IMAGE

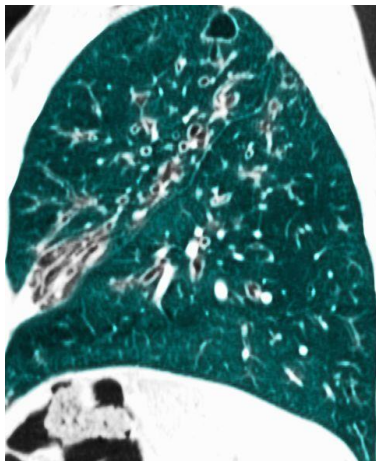
**Dr. Katie Bouman** celebrated the first-ever photo of a black hole using an algorithm that her team began developing three years ago while she was in grad school at MIT's Computer Science and Artificial Intelligence Laboratory. The algorithm converted data from an array of eight telescopes using a technique called interferometry.

Watching in disbelief as the first image I ever made of a black hole was in the process of being reconstructed. Posted by Katie Bouman, Wednesday, 10 April 2019



photo source: pbs.org

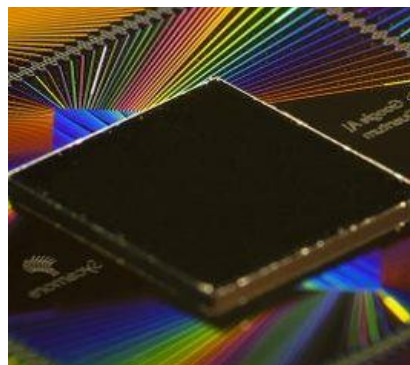
## Notable 2019 Science "FIRSTS"



### A CURE FOR CYSTIC FIBROSIS?

Two studies in the New England Journal of Medicine and the Lancet revealed a new treatment for this painful lung disease.

photo: Callista Images / Getty Images



### GOOGLE ACHIEVES QUANTUM SUPREMACY.

It's "Sycamore" chip can solve a problem in three minutes that would take a supercomputer 10,000 years. photo: google

## The Science Fairy Rests Her Wings

**Twenty one years ago** I took a position that evolved to the point where I became the "Science Fairy." Through the generosity of the Synopsys Outreach Foundation, I have had the honor and privilege of working with the SCVSEFA volunteer board members and going to many classrooms to help students better understand what is, and what is not, science. I have worked with parents and the amazing teachers that take on the nearly impossible task of individualized instruction and maintenance of the equipment that is necessary for science fair projects to come to life.



During this time I have beamed with pride when I see students emerge from schools with their display boards, ready to construct them for presentations. I have watched timid and nervous young people become the experts in their fields of study, and I have been lucky enough to be part of a Board of Directors that must be the brightest, most assiduous and thoughtful in all the land. I have marveled at the hours put in by volunteers who have no children of their own benefiting from their work.

In many ways I have been privileged to sit at the table of a shining example of what makes the United States great: volunteerism, the nurturing of the serious pursuit of science and technology, and the hard work and diversity of our youth, many of whom are new to the country. As I leave behind my position as the "Science Fairy", I do so with gratitude that I have had the opportunity to work with the best and brightest, to stay connected with many as they make their way to university, grad school, employment, and finally come "home" to start giving back through judging, mentoring, and even joining the SCVSEFA Board.

We all hope that you have learned and grown through the process of getting to this day. You have successfully filled out an online application (and possible iterations thereof), you have planned, researched, procured, experimented, tested, recorded, analyzed, and are ready to present what you have discovered. I have always maintained that these projects are the most demanding and real thing you will ever do throughout school. I hope you stand proud in the knowledge that you have improved your skills, your time management, and learned a bit about whether research or engineering is the right path for you. Because the country needs you. Go out there and make the world a better place. Enjoy sharing your hard work with everyone tomorrow.



## CSSF: California State Science Fair

In the last 10 years, Synopsys Championship projects won either Junior or Senior Project of the Year awards at the CSEF. In 2010, 2015, and 2019 a Synopsys Champion project won both top awards.

Due to the ever-shrinking luggage allowances on planes, we decided to take a bus to Los Angeles for the 2109 California State Science and Engineering Fair. The bus allowed us to transport as many boards as we needed, even those who did not join us for the ride down (keep this in mind if you win a spot at CSEF.) Although we had to get up a bit earlier and arrived home a bit later, everyone saved money and the lead chaperone didn't have to stress about flights getting delayed or cancelled!

We are happy to report that many other fairs are now contributing high quality projects-this does mean that we don't get to come home with as many first-place medals. However, we still are making a strong showing, and riding on the bus is another way for participants to get to network. Make sure you join us for the group shot in LA if you are one of those selected to participate. Good luck to each of you! - Heidi Black



### Senior Division

#### Project of the Year

Akhilesh Balasingam  
Mitty HS, Grade 10  
Optimizing Analog Response  
of RRAMs Under Pulsing for  
Synaptic Use



### Junior Division

#### Project of the Year

Sanskriti Singh  
Rolling Hills MS, Grade 7  
Detection of Pneumonia  
CXR Image Using Neural  
Networks Minimizing  
False Negatives



## What's Next ?

If your project was judged as a First, Second, Honorable Mention or a Special Award winner, you will be invited to attend the **Awards Ceremony on Sunday, April 5th, 2020**. Check out [www.science-fair.org](http://www.science-fair.org) after March 31st to see if you are a winner and to find details for the event. There will be two ceremonies; one for the middle school winners and one for high school winners. You'll receive your ribbon or medal and you may also get a Special Award -- or more than one! Or ... a spot at the California State Science Fair!  
Or ... an all-expense-paid trip to the **Regeneron International Science and Engineering Fair** - the Grand Prize!

Volunteers make it happen for our students. You can join our wonderful team of volunteers. Sign up at [www.science-fair.org](http://www.science-fair.org) and click on VOLUNTEERS. Volunteers make it possible for students' dreams to come true.

# THANK YOU !

Non-affiliated 2019 Volunteers returning for 2020  
Scientific Review Committee Volunteers  
SCVSEFA Staff and Board Members at the Championship

15  
17  
22

Arhana Aatresh  
 Sherif Abdou  
 Maya Abiram  
 Anshika Agarwal  
 Sandhini Agarwal  
 Deepesh Aggarwal  
 Ashwika Agrawal  
 Vardhan Agrawal  
 Ishaan Agrawal  
 Iyaad Ahammed  
 Rehaan Ahmad  
 Javeria Ahmed  
 Adreema Ahsan  
 Dulati Aideli  
 Kylie Akiyama  
 Shray Alag  
 Luis Alcaraz  
 Ava Alexander  
 Pranav Amarnath  
 Adarsh Ambati  
 Hrishikesh Ankireddi  
 Nithya Appannagaari  
 Sadik Aref  
 Anissa Aribi  
 Lubat Asadova  
 Anousha Athreya  
 Aishwarya Atmakuri  
 Pranav Atreya  
 Akshay Attaluri  
 Nithya Sri Attaluri  
 Ansel Austin  
 Swathi Badrinarayanan  
 Anagha Badriprasad  
 Shiva Balachander  
 Danya Balagopal  
 Srinivas Balagopal  
 Akhilesh Balasingam  
 Aeshon Balasubramanian  
 Anuva Banwasi  
 Noah Barlahan  
 Arjun Barrett  
 Sophia Barwegen  
 Ruhi Batchu  
 Aditya Behal  
 Nishita Belur  
 Doron Bentov  
 Aneesh Bhat  
 Anoop Bhat  
 Aayush Bhat  
 Amulya Bhattaram  
 Anish Bhethanabotla  
 Rohan Bhowmik  
 Vir Bhutani  
 Romina Blanco-Sarmiento  
 Aleena Bosky  
 Munir Bshara  
 Janya Budaraju  
 Ynna Buriel  
 Maciej Buszko  
 Kaitlyn Butcher  
 Justin Cai  
 Emilio Cantu-Cervini  
 Anna Castello  
 Jennifer Chacon-Duran  
 Ramya Chamkeri  
 Yu-Ting Chang  
 Bennie Chang  
 Anya Chatterjee  
 Phillip Chau  
 Uday Chaudhary  
 Brian Chen  
 Rosie Chen  
 Gordon Chen  
 Belinda Chen  
 Jason Chen  
 Cynthia Chen  
 Neeta Chethan  
 Om Sunil Chhaya  
 Andrew Chiang  
 Impana Chimmalagi  
 Dylan Chin  
 Tarun Chiruvolu

Nathan Chiu  
 Paulo Cho  
 Matthew Cho  
 Myung Choi  
 Seung Choi  
 Zeeshaan Chunawala  
 William Chung  
 Ana Cismaru  
 Jason Co  
 Ryan Co  
 Aralyn Connolly  
 Audrey Cui  
 Lexxa D'Amico  
 Andrew Dang  
 Ashley Dang  
 Jadelynn Dao  
 Sudiksha Das  
 Ishani Das  
 Akash Dasgupta  
 Aryia Dattamajumdar  
 Advit Deepak  
 Samarjit Deshmukh  
 Ria Deshpande  
 Jennifer Dick-Peddie  
 Abida Diep  
 Jonathan Dimas  
 Ruchika Dixit  
 Brandon Do  
 Jason Dong  
 Aaryan Doshi  
 Aaleesha Doshi  
 Veer Doshi  
 Michael Eng  
 Pranav Eranki  
 Vasily Ermolenko  
 Raya Farber  
 Alice Feng  
 Kelly Ferguson  
 Jeremy Flint  
 Noah Fond  
 Harper Forbes  
 Ben Freda-Eskenazi  
 Anika Fuloria  
 Milan Ganai  
 Saurav Gandhi  
 Aditi Ghalsasi  
 Mallika Ghante  
 Dadmehr Ghasemfar  
 Ayush Ghosh  
 Nilansh Ghosh  
 Anusha Ghosh  
 Ori Gillai  
 Samanya Girish  
 Arti Gnanasekar  
 Aarush Gogineni  
 Sahas Goli  
 Aadit Golwala  
 Caitlin Gorin  
 Kinjal Govil  
 Hannah Grayeski  
 Maria Grothe  
 Tanisha Grover  
 Jorge Guhe  
 Alexander Guh-Siesel  
 Tanisha Gupta  
 Riya Gupta  
 Devin Gupta  
 Keshav Gurushankar  
 Miranda Gutierrez  
 Sally Ha  
 Abhinav Hari Krishna  
 Ben Hayes  
 Sarah Honer  
 Nicholas Hotelling  
 Justin Hou  
 Sierra Howard  
 Terry Hsu  
 Austin Hu  
 Eric Hu  
 William Huang  
 Charles Huang  
 Jacob Huang  
 Charles Huang

Jacob Huang  
 Charles Huang  
 Arissa Huda  
 Royal Huey III  
 Ava Hultquist  
 Safaa Hussain  
 Ashvin Irrinki  
 Maryam Ismail  
 Fatimah Ismail  
 Ahmad Ismail  
 Sanika Iyer  
 Kate Jackson  
 Isha Jagadish  
 Neel Jagdish  
 Swasti Jain  
 Prakrit Jain  
 Sahil Jain  
 Shloka Janapaty  
 Romina Jateli  
 Eshani Jha  
 Arnab Jhingran  
 Allison Jia  
 Connie Jiang  
 Ananya Jilla  
 Sanjana Jilla  
 Michelle Jin  
 Ryan Judy  
 Ishan Juluri  
 Iain Jung  
 Philip Kabranov  
 Diya Kadadi  
 Lillian Kaelber  
 Pranav Kakhandiki  
 Nikitha Kalahasti  
 Sidharth Kalje  
 Joshita Kamalakannan  
 Veda Kamaraju  
 Hemani Kamarshi  
 Vivek Kamarshi  
 Shreyaa Karan  
 Ananya Karthik  
 Avani Karvat  
 Arin Kathapurkar  
 Vyshnavi Katta  
 Tavleen Kaur  
 Vedavi Kavoori  
 Mamoon Khan  
 Dhvani Kharidia  
 Ethan Kim  
 Juno Kim  
 Eleanore Kirshner  
 Alon Knaan  
 Jeremy Ko  
 Krithi Koodli  
 Maria Korolik  
 Reshma Kosaraju  
 Bogdan Kovtun  
 Nicole Krockenberger  
 Raymond Kuan  
 Danica Kubota  
 Danica Kubota  
 Anika Kulkarni  
 Sakshi Kumar  
 Grace Kuo  
 Hemal Kurani  
 Hetal Kurani  
 Grace Kwak  
 Chinmay Lalgudi  
 Supriya Lall  
 Charlotte Lara  
 Uyen-Vy Le  
 Elaine Lee  
 Alan Lee  
 Tasha Lera  
 Wesley Liao  
 Joe Lin  
 Heidi Lin  
 Jason Lin  
 Benjamin Lipman  
 Zechen Liu  
 Jason Lo  
 Steven Long  
 Fiona Luo

Beckett Lyons  
 Eileen Ma  
 Kimberly Maddox  
 Aaditya Mahajan  
 Lakshay Maharana  
 Krish Maheshwari  
 Arya Maheshwari  
 Ateef Mahmud  
 Rohit Malhotra  
 Marisa Malto  
 Harsha Manamala  
 Sanjana Manikandan  
 Neha Mannem  
 Aishwarya Manoj  
 Nicholas Manuto  
 Francisco Martin  
 Emerson Martin  
 Alice Martynova  
 Alexandra Masegian  
 Liam McHugh  
 Kristine McLaughlin  
 Jai Mehta  
 Anav Mehta  
 Rakesh Mehta  
 Rohit Mekkoth  
 Beatrice Mihalache  
 Aidan Miranda  
 Shannon Miranda  
 Annika Mittelhauser  
 Aziza Mohammed  
 Jaidyn Moodley  
 Sahana Moogi  
 Ojas Mor  
 Christian Moran  
 Dov Morris  
 Safaa Mouline  
 Elena Mujica  
 Shuhul Mujoo  
 Rucha Mujumdar  
 Atreyi Mukherjee  
 Krishay Mukhija  
 Supriya Mula  
 Kavita Murthy  
 Aryo Nabyzadeh  
 Jordan Naddaf  
 Namrata Nair  
 Shailee Nanavati  
 Keshav Narang  
 Tejas Narayanan  
 Ishani Narwankar  
 Katherine Nasif  
 Micah Nassi  
 Ria Nawathe  
 Tanaya Nawathe  
 Gael Neighbors  
 Nadine Ngo  
 Helen Nguyen  
 Caitlin Nguyen  
 Kaitlyn Nguyen  
 Alexander Nguyen  
 Kaitlyn Nguyen  
 Dien Nguyen  
 Timothy Nguyen  
 Srikar Nimmagadda  
 Jyotaaaver Nirula  
 Wyndia Ohm  
 James Ouyang  
 Raj Palleti  
 Tara Pande  
 Anika Pandey  
 Rishi Pankhaniya  
 Ashwini Paramesh  
 Khushi Parikh  
 Joshua Park  
 Emily Park  
 Jonathan Park  
 Chaelee Park  
 Rishab Parthasarathy  
 Sharad Parulekar  
 Mallika Parulekar  
 Arushi Patel  
 Aalok Patwa  
 Ada Peshanskiy  
 Minh Phan  
 Siddharth Phatak

Ganesh Pimpale  
 Govind Pimpale  
 Marek Pinto  
 Bianca Poblano  
 Saeed Pole  
 Ezequiel Ponce  
 Sritej Ponna  
 Akshita Ponnuru  
 Manasa Pooni  
 Pratya Poosala  
 Vishnu Potharaju  
 Tejas Prabhune  
 Suhas Prasad  
 Swastik Purathepparambil  
 Srivishnu Pyda  
 Justin Quan  
 Nicolas Quijano  
 Dario Quintero  
 Eshan Rachapudi  
 Adhip Raghunathan  
 Gautham Raghupathi  
 Rhea Rai  
 Sneha Raj  
 Kavinaya Rajesh  
 Ashwin Rajesh  
 Harsha Rajkumar  
 Sahana Rajmohan  
 Sasvath Ramachandran  
 Arvind Ramachandran  
 Pratibha Ramasamy  
 Nikhil Ramkrishnan  
 Jyoti Rani  
 Rashi Ranjan  
 Aditya Rao  
 Divya Rao  
 Ashish Rao  
 Vaibhav Rau  
 Sudeep Ravipati  
 Niti Reddy  
 Nishan Reddy  
 Nitish Reuben  
 Sneha Revanur  
 Kami Richardson  
 Sohom Roy  
 Triya Roy  
 Franklin Ruan  
 Evelyn Rubinchik  
 Jared Saal  
 Romella Sagatelian  
 Rushil Saha  
 Kabir Sahni  
 Karthyayan Sajeev  
 Kaushik Salem  
 Nikita Salunke  
 Stephanie Samame  
 Aasees Sandhu  
 Greg Santangeli  
 Josh Sanyal  
 Anushka Sanyal  
 Josh Sanyal  
 Bidipta Sarkar  
 Ruhi Sayana  
 Maya Schechtman  
 Shelby Schuberg  
 Julian Schultz  
 Sanjay Selvakumar  
 Nikita Senthil  
 Shailesh Senthil  
 Praneel Shah  
 Aahan Shah  
 Shlok Shah  
 Reva Sharma  
 Neel Sharma  
 Isabelle Shay  
 Nidhya Shivak  
 Ashar Siddiqui  
 Daniel Siegel  
 Diptanshu Sikdar  
 Sanskriti Singh  
 Dashmi Singh  
 Anjali Singh  
 Shivam Singhal  
 Sangyani Sinha  
 Anjali Sinha  
 Shreya Sinha  
 Rohan Siva

Ayush Sodani  
 Milagros Sotelo  
 Navon Soussan  
 Isabel Sperandio  
 Sriya Sridhar  
 Shruti Sridhar  
 Nethra Srinivasan  
 Arya Srivastava  
 Saurish Srivastava  
 Rushil Srivastava  
 Akshanth Srivatsa  
 Zoe Pearl Stern  
 Katelyn Stone  
 Jocelin Su  
 Neel Sudhakaran  
 Ishwar Suriyaprakash  
 Sivaramaka Suvarna  
 Anna Suvorova  
 Sonia Swamy  
 Samika Swamy  
 Tanish Swarnapuri  
 Jocelyn Swift  
 Elizabeth Szeto  
 Aditya Tadimeti  
 Lauren Taffe  
 Ashukem Taku  
 Eva Talamantez  
 Jose Talon  
 Rayyan Talukdar  
 Derek Tan  
 Pujita Tangirala  
 Mahit Tanikella  
 Rohit Tanikella  
 Tharika Thambidura  
 Vittal Thirumalai  
 Joseph Thomas  
 James Thornton  
 Betsy Tian  
 Jonah Tien  
 Samantha Togliatti  
 Zeynep Tokuz  
 Tracy Tran  
 Sophia Tran  
 Duc Tran  
 Van-Khanh Tran  
 Aadit Trivedi  
 Kavish Trivedi  
 James Tsaggaris  
 Claire Tsai  
 Nicole Tsioutsoulaki  
 Hoshita Undella  
 Arthi Vaidyanathan  
 Rohit Vakkalagadda  
 Kaitlyn Venator  
 Purnima Venkat  
 Anirudh Venkatraman  
 Shashank Venkatraman  
 Vivek Verma  
 Charu Vijay  
 Aanya Virmani  
 Annika Viswesh  
 Stephanie Vu  
 Cindy Wang  
 Eddie Wang  
 Stanley Wang  
 Nicholas Wei  
 Claire Wen  
 Taylor Wong  
 Christina Wong  
 Alexander Wu  
 Austin Wu  
 Stephen Xia  
 Iris Xia  
 Paulina Xu  
 Joyce Yang  
 William Yang  
 Brian Yang  
 Samantha Yang  
 Henry Yao  
 Megha Yengoti  
 Ada Yoder  
 Jonathan Yu  
 Michael Yuan  
 Chaela Zaide  
 Alexander Zhang  
 Tom Zhang  
 Katherine Zhang  
 William Zhao  
 Michael Zhao  
 Anli Zhu  
 Sabrina Zhu  
 Sally Zhu  
 Isaac Zucker  
 Ethan Zuo

Congratulations 2019 winners

# Special Awards and Sponsors of Special Awards

Al Foster Award  
 American Association for Laboratory  
 Animal Science, N. California  
 American Chemical Society, Santa  
 Clara Valley Local Section  
 American Institute of Aeronautics  
 and Astronautics (AIAA)  
 Intelligent Systems Award  
 American Meteorological Society  
 American Psychological Association  
 American Society of Civil Engineers  
 Arizona State University Walton  
 Sustainability Solutions  
 ASEI American Society of Engineers  
 of Indian Origin  
 ASM International, A Society for  
 Materials, Santa Clara Valley  
 ACM San Francisco Bay Area  
 Professional Chapter  
 Association of Women Geoscientists,  
 SF Bay Area Chapter  
 Association for Women in Science,  
 Palo Alto Chapter  
 Broadcom MASTERS  
 California Association of Professional  
 Scientists  
 California Botanical Society  
 California Society for Biomedical  
 Research - Ron Orta  
 Excellence in Biomedical  
 Research  
 Green Ninja  
 Hegland Award  
 IBM Award  
 I-SWEEEP

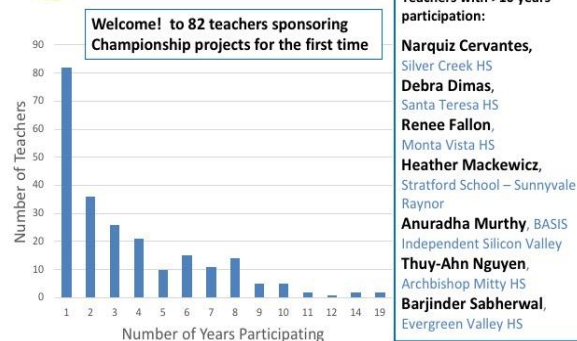
Inez M. Lechner Award  
 Institute of Electrical and  
 Electronics Engineers (IEEE)  
 Intel Excellence in Computer  
 Science Award  
 Morgan Lewis  
 Mu Alpha Theta  
 Muddu Family Entrepreneurial and  
 Startup Award  
 NASA Earth Systems Science Award  
 National Oceanic and Atmospheric  
 Administration (NOAA)  
 Northern California Institute of Food  
 Technologists (NCIFT)  
 Resource Area for Teaching (RAFT)  
 Teacher Award  
 Ricoh Corporation  
 SAMPE- Society for the Advancement  
 of Material, Process Engineering  
 San Jose State University College of  
 Engineering  
 Santa Clara County Biotechnology  
 Education Partnership  
 Santa Clara Valley Science & Engineering  
 Fair Association - Board of  
 Directors Awards - High School  
 Santa Clara Valley Science &  
 Engineering Fair Association  
 Board of Directors Awards -  
 Middle School  
 Schonert Award  
 SETI Institute  
 Society for In Vitro Biology  
 Society of Vacuum Coaters (SVC)  
 Society of Women Engineers



Stanford University Chemistry Dept.\*  
 Stockholm Junior Water Prize  
 System Safety Society  
 Synopsys - Society of Women  
 Engineers  
 TechLab Education  
 The Ann Burrell Award  
 The Bruce Kawanami Engineering  
 Award  
 The Kerry Veenstra Award  
 The SETI Institute  
 The Synopsys Outreach Foundation  
 n+1 Prize  
 Trimble Navigation Awards  
 United States Air Force  
 United States Coast Guard Auxiliary  
 United States Metric Association  
 United States Navy and Marine Corps  
 U.S. Public Health Services Award  
 University of Toronto Award  
 Varian Medical Systems  
 Wireless Communications Alliance  
 Yale Science and Engineering  
 Association Award  
 Zeidman Award



## Years of TEACHER Participation In the Synopsis Championship



## Farewell Murlin Marks, Pat Pizzo

A couple of people with a very long association with SCVSEFA recently passed away.

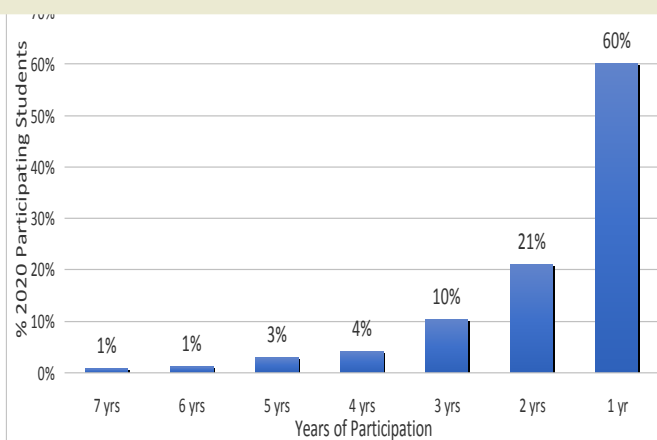
Dr. Pat Pizzo was a very early member of the SCVSEFA board of directors, a past president and a judge for us for many, many years.

Murlin Marks was a long time board member, past president of SCVSEFA, a judge, and the lead of the SRC check-in line 9. Murlin was also instrumental in getting ISEF here to San Jose (twice) and in getting the support of Synopsys Outreach Foundation for the Championship.



They will be missed by all of us on the SCVSEFA board.

## 2020 Championship - Years of Student Participation





**Anusha Ghosh**  
Presentation High '2020



Photo not available:  
**Raghav Ganesh** Lynbrook High '2020

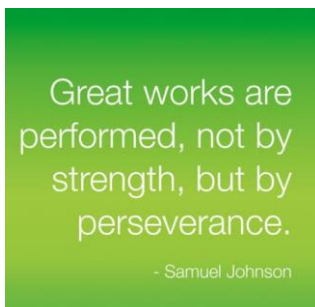
## Congratulations to the Seven Year Students

Students who have the passion and perseverance to develop projects every year since the sixth-grade!



**Zara Shariff**  
Presentation High '2020  
Mechanical Engineering

**Suhas Prasad**  
Monte Vista High '2020  
Applied Mathematics  
Computer Science



**Chinmay Lalgudi**  
Lynbrook High '2020  
Computer Science

**Kami Richardson**  
Notre Dame SJ '2020  
Biophysics  
Classical Studies



**Ben Cichy**  
@bencichy

Got a 2.4 GPA my first semester in college. Thought maybe I wasn't cut out for engineering. Today I'm landing two spacecraft on Mars, and designing one for the moon.

STEM is hard for everyone. Grades ultimately aren't what matters. Curiosity and persistence matter.

### Santa Clara Valley Science & Engineering Fair Association

#### Officers

President: Heidi Strahm Black  
President-Elect: Sandra Meditch  
Treasurer: Anjaney Kottapalli  
Secretary: Aparna Sayana

thank you

#### Board Members

June Andersen, Ph.D.  
Vanessa Burbach  
Ann Burrell, Ph.D.  
Aulena Chaudhuri  
Antonio Gallo  
Karen Gundy-Burlet  
Moenes Iskarous, Ph.D.  
Veena Jain  
Lynn Liebschutz  
Sudha Raman  
Larke Reeber  
John Turner  
Kerry Veenstra  
Forrest Williams, DEE  
Sandi Yellenberg, M.A  
Xi Zhao-Wilson, Ph.D.

#### Scientific Review

##### Committee (SRC):

Ann Burrell, Ph.D. (Chair)  
Heidi Strahm Black  
Krista Bowman, Ph.D.  
Holly Denton  
Ruth Gordon  
Karen Gundy-Burlet, Ph.D.  
Jenny Kiratli, Ph.D.  
Katy Korsmeyer, Ph.D.  
Anjaney Kottapalli  
Gretchen Lam, Ph.D.  
Lynn Liebschutz  
Ann Shioji  
Lew Smith  
Maureen West, M.A  
Sandi Yellenberg, M.A

**Staff:** Katherine Jarvis, Nina Wong-Dobkin

### 2020 Synopsys Championship

#### The Fair:

- 1041 participating students
- 0786 projects
- 0514 teachers
- 0081 schools
- 0550 volunteer judges
- 0050 community volunteers

#### Students:

- 432 middle school students
- 609 high school students
- 51% female; 49% male

#### 2019 Awards:

- ~40% of students, received awards
- 328 projects received scientific category awards (1st, 2nd or Honorable Mention)
- 218 projects received special awards from sponsoring organizations.
- 64 students went on to compete at the CSEF, ISEF, and Broadcom MASTERS

**We gratefully acknowledge those who support the Synopsys Championship** and thank those who support STEM education by allowing their employees time to volunteer at the event. Thanks to the students, parents, teachers, mentors, schools and for making the Synopsys Silicon Valley Science & Technology Championship a premier event.



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