



## Welcome from Sandra A. Meditch, 2024-2025, President of the Board of Directors, Santa Clara Valley Science & Engineering Fair Assn.



On behalf of the Board of Directors of Santa Clara Valley Science and Engineering Fair Association (SCVSEFA), I would like to welcome you to the 2025 Synopsys Silicon Valley Science and Technology Championship! This is the 66th anniversary of our science fair in Santa Clara County.

What is Science? We ask how, where, why, when and what, and seek answers. We are on a quest for knowledge and understanding of ourselves and our world. We ask "How come?". How come when we do X, Y happens and not Z, or nothing at all? We ask "Where did

this come from". Did it come from the sky, or some other place? We ask "Why does this work?". Why does this work this way and not another? We ask "What is this?" What is it made of or what is it's purpose.

From a very young age, we asked the adults in our lives these questions and got answers. Some times these answers are satisfactory and some times not. So we sought more answers and understanding. As we mature, we ask deeper, more challenging questions. The internet opened a world for us to explore but to also question. Did this source answer my question? Maybe yes, maybe no, why? Is this a reliable source? Are there more out there? Do I agree or disagree with their conclusion and if so why?

Along with the Internet, we have the opportunity to do the exploration ourselves, testing our theories and hypotheses with experimentation. To ask those questions ourselves and explore them in real time.

As we celebrate 66 years of science in the valley, we continue to ask, how, where, why, when and what, and seek answers. Thank you for celebrating with us.

I want to thank the Board Members, Staff, Judges, and Volunteers for their hard work and putting their time and energy into creating a fulfilling experience for everyone. To our many continuing sponsors, thank you for your on-going support over the years. I want to thank the teachers and their efforts in developing young minds into future engineers and scientists.

And finally, I also wish to thank the Synopsys Outreach Foundation for their gracious and generous support. ✓

# International Science & Engineering Fair 2024

Written by Heidi Black, Head Chaperone for SCVSEFA Group at ISEF

ISEF 2024 was held in Los Angeles, CA. We appreciate the short flight. This year will be tricky getting to a new site, Columbus, Ohio!

Twelve finalists and 3 chaperones made their way down on Saturday, and we were able to check in and get a good night's sleep - preparing for a very busy week!



There always seems to be some change at registration at the convention center, but we got our badges, and went on to the floor to set up boards and make an appointment for our display and safety check. This year it was a two step process - a preview by the less experienced members, and if you made it through that, a second appointment for the real sticklers! Again, the biggest issue remains inadequately cited images, graphs, etc. We also had lengthy discussions about an app that wasn't approved. It took more than a day just to get us all through the display and safety process. On our second day we try to give everyone a chance to practice their presentation. Even for those who have had a great deal of coaching, it is still good to have a fresh set of ears and questions posed.

On Monday afternoon we were able to gather for a special all-California get together, photos and ice cream treats!



Tuesday we are not allowed into the projects as the judges preview them. The students are offered several talks to listen to, including those with Nobel Laureates.

Wednesday is the **big day** - all dressed up and eager, the students will be at their boards for several hours trying to make sure the judges appreciate their work. Another reason to enjoy LA, the after judging celebration is at Universal Studios, and we get the entire place to ourselves-Harry Potter ride with NO lines!

Thursday we have 3 goals - 1) get photos while the students are at their projects for public viewing, 2) have a nice dinner celebrating everyone's work, and then 3) off to gather our first set of sponsored awards.

Friday is the grand Award ceremony, where the head chaperone is always worried about making our flight if one of our finalists get top recognition. And we collected many awards, including 2 1st place in category, and then, sure enough, one of the top awards, the Regeneron Young Scientist Award went home with us too! And we made our flight! ✓



# Congratulations to the 2024 Synopsis Championship Winners!

Muhammad Abu-Nimeh	Sahithi Cherukuri	Sera John	Kevin Mathew	Vignesh Rajagopalan	Mihir Suria
Anish Agarwal	Spandana Chimmalagi	Shripriya Kalbhavi	Maya Mazin	Ashwath Ram	Emmanuel Swenson
Ziya Ahmad	Connor Chin	Sanskriti Kamaraju	Julian McClelland	Adwita Ram	Gabor Szita
Ayah Al-khasib	Vedant Chinta	Bhargava Kanakapura	Riya Mehrotra	Tarun Ramakrishnan	Connor Taffe
Ivy Alcheck	Adit Chintamaneni	Aviv Kanarik	Ananya Mehta	Shreshta Ramji	Aadrit Talukdar
Dhivi Aleti	Jacob Chiu	Aanya Kandala	Revathi Mekkoth	Maanasa Ramprasad	Jiya Tejura
Ricky Rex Alexias	Woong Choi	Chaaruhaas Kandregula	Young Min	Yash Ranjith	Gauri Todur
Avery Amsili	Ethan Chu	Anijeet Kanjilal	Dylan Miranda	Adrit Rao	Saachi Todur
Sahana Anamika	Emily Chu	Sanvi Kannoori	Aarav Mishra	Claire Rao	Sophie Tong
Isabel Antony	Alexandru Cismaru	Christopher Kao	Aavya Mishra	Sohil Rathi	Phiet Tran
Atharv Aravind Rao	Arlo Cohen	Shriya Kapavarapu	Devshree Mistry	Samanyu Rayala	Janvi Trivedi
Tarek Aref	Dylan Dale	Nikethana Karthikeyan	Abhimanyu Mitra	Brenna Ren	Audrey Tsai
Ragavan Arivazhagan	Varun Dangeti	Khedaar Kashyap	Ryan Mo	Emma Rensin	Nolan Tsai
Krish Arora	Jeanelle Dao	Abhinav Kasturi	Hanav Modasiya	Sruthi Rentachintala	Reva Ukkadam
Mahita Arun	Ishan Dave	Zeyneb Kaya	Ariana Motaghiannezam	Isaac Romanoff	Sohum Uttamchandani
Sneha Arun	Archit Deepak	Ruhi Kelkar	Zaid Muhammad	Tyler Rose	Aarush Vailaya
Vikram Atmuri	Haoyuan Deng	Aadi Kenchammana	Anika Mukherjee	Eden Ross	Satvik Vale
Sreekar Baddepudi	Avni Desai	Idan Kestenbom	Kuvam Muku	Ishaan Rout	Angely Vargas
Adithi Badrinarayanan	Anagha Dhurjati	Shahnoor Khalid	Akhil Munipalle	Ahvish Roy	Aarush Vashi
Aditi Badriprasad	Vanessa Dinh	Trishia Khandelwal	Raeyaan Muppaneni	Karthik Sabhanayakam	Bhargavi Vatte
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Ryan Bansal	Selma Emekci	Matthew Kim	Akhil Nagori	Trisha Saxena	Agastya Vitaldevara
Aditya Banwasi	Adrina Esmaeilpour	Minkyu Koo	Nikhil Nagori	Chloe Scott	Kallie Wang
Dyuti Batchu	Nathan Farber	Ethan Kou	Vani Nair	Ananthika Selvan	Zihe Wang
Oskar Baumgarte	Ayal Feinstein	Bhavya Krishnan	Advait Narayanan	Siddharth Senthil	Yixuan Wang
Diya Bengani	Hiruna Fernando	Neil Krishnan	Vihaan Narkhede	Hursh Shah	Harold Wang
Vibha Bengani	Serena Gandhi	Hrithvik Kumar	Saharsh Navudu	Areha Shah	Sasha Wang
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Anish Bhethanabotla	Raghav Garimella	Madison Lee	Jason Nishio	Reva Sharma	Liv Weiner
Ava Bhowmik	Matthias Garzon	Lauren Lee	Nelson Nishio	Dhruv Sharma	Jihoo Won
Marcus Blennemann	Ayush Ghosh	Charlene Li	Suhani Pahuja	Saanvi Sharma	Josephine Wong
Amit Boiman	Vanya Goenka	Raeanne Li	Rohan Pal	Anvee Sharma	Lucas Wu
Pranav Bokde	Armaan Gomes	Sophia Li	Zachary Pan	Eshaan Sharma	Vince Wu
Amogh Bondili	Nelson Gou	Juliana Li	Aditi Panchagnula	Shaurya Sharma	Daniel Xiao
Anav Bordia	Neel Gowda	Andrew Liang	Viraj Pandey	Hongyi Shi	Braden Yang
Polina Bortok	Shreya Goyalpatel	Ashley Lim	Mishali Pandey	Lily Shi	Stephanie Yang
Takumi Britt	Carina Gross	Winfred Lin	Laasya Pandravada	Christopher Shin	Dohyun Yang
Serina Cao	Hao Gu	Hannah Lin	Elynn Pang	Sahana Shyam	Franklin Yang
Jessie Cao	Pranav Gupta	Natalie Lin	Evangelos Papadimitriou	Ian Sim	Charlotte Yang
Carter Capetz	Naitik Gupta	Jacob Lipman	Ethan Park	Sahil Singamsetty	Sunny Yao
Maya Caren	Disha Gupta	Bridget Liu	Mridini Parui	Aishani Singh	Grace Yao
Aria Chadha	Aditi Gupta	Olivia Liu	Maytut Pasakdee	Aryan Singhal	Ella Yee
Vrishank Chandrasekhar	Anushree Gupta	Dale Liu	Manvik Pasula	Kiah Singla	Nathan Yee
Grace Chang	Avi Gupta	Andrew Liu	Reeva Patel	Sathvika Siva	Melody Yin
Emma Chang	Aditya Guru	Saria Lum	Saket Pathak	Jacob Sobel	Jean Yoo
Riya Chatterjee	Ethan Ha	Yuqin Ma	Advika Pathak	Ayush Sodani	Truman You
Abhinab Chatterjee	Amaya Hermosillo	Atharv Mahajan	Akhil Pathapati	Noah Song	Koby Yu
Shrehan Chatterjee	Shriyanka Hiremagalur	Nandana Mahes Kumar	Annie Peng	Tanisha Sood	Samuel Yuan
Shreyas Chatterjee	Michelle Ho	Arushi Mallick	Mika Perl	Aadit Sood	Linda Zeng
Ishan Chaugule	Vivienne Hollenbeck	Ishaan Mandala	Ari Phan	Charan Sridhar	Elizabeth Zhang
Garuda Chen	Rory Hu	Arushi Mani	Max Polosky	Nandanaa Srikanth	Ariel Zhang
Jillian Chen	Kangjia Huang	Ananya Manoj	Niral Poongovan	Saksham Srivastava	Jeffrey Zhang
Edward Chen	Sanjana Iyengar	Clarina Manuel	Kirsten Porter	Nicole Stavrakos	Eddie Zhang
Ava Chen	Ajay Jagadish	Delisha Manuel	Siddharth Pothula	Stella Su	Evan Zhang
Caroline Chen	Aashi Jain	Nathan Mao	Ojas Prabhune	Lucas Su	Michael Zhao
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# 2025 SCVSEFA Patrons of Sponsored Awards

Access Braille Awards	Inez M. Lechner Award	SAMPE – Society for the Advancement of Material & Process Engineering, Santa Clara Valley Chapter
AI Foster Award	Institute of Electrical & Electronic Engineers (IEEE)	Schonert Award
American Institute of Aeronautics and Astronautics Intelligent Systems Award	Kerry Veenstra Award	SPV Market Research
ASEI Awards	The Lemelson Early Inventor Prize	SVACS American Chemical Society, Silicon Valley Chapter
American Vacuum Society, Northern CA	NASA Earth System Science Award	Thermo Fisher Scientific Junior Innovators Challenge
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Bessie Stough Award	Northern California Institute of Food Technologists (NCIFT)	United States Air Force
Bruce Kawanami Engineering Award	Office of Naval Research - U.S. Navy / U.S. Marine Corps	Valley Water Award
California Science & Engineering Fair	Regeneron Biomedical Science Award	Wireless Communications Alliance
Dewayne Hendricks Award	Robby Beyers Innovative Solutions Award	Yale Science and Engineering Association
Environmental Protection Agency		Zeidman Award
Green Ninja Award		
IBM Award		



## 2024 SYNOPSIS CHAMPIONSHIP STATISTICS

Projects and Students	
# Championship applicants (individuals)	809
# Individual participants	792
middle-school students (36 middle schools*)	286
high-school students (41 high schools*)	506
# Approved projects competing	569
individual middle-school projects	116
team middle-school projects	68
individual high-school projects	292
team high-school projects	93
Percentage of Students by Number of Years Participating**:	
62% 1 year	
22% 2 years	
9% 3 years	
5% 4 years or more	
**Percentages may not sum to 100% due to rounding.	
Registered Judges	
Category judges	201
Grand-prize judges	36
Sponsored-award judges	111

## Santa Clara Valley Science & Engineering Fair Association (SCVSEFA)

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We gratefully acknowledge the following individuals, groups, and corporations who have contributed to the Synopsys Silicon Valley Science and Technology Championship and the Santa Clara Valley Science and Engineering Fair Association for the 2025 Championship.

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(Donate \$65,000)



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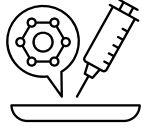
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# A Journey of a Synopsys Championship Participant

Interviewed and Written by Nishita Viswajith, Editor, The Roar, Student Newspaper, Santa Clara High School



Shubha Raghvendra, senior product manager at Cohere, participated in science fairs throughout her middle and high school career. Ms. Raghvendra's early love for science and experimentation followed her through school, college, and even the workforce. The skills that Ms. Raghvendra gained from the science fair experience is still evident in her current job.

Motivated by a prize trip to the theme park Great America, Ms. Raghvendra began her science fair journey early in middle school. Her sixth grade project on distracted driving stood out to her then and remains one she admires to this day. Ms. Raghvendra explained that during the time she ran her experiment, individuals barely had speakerphones, meaning that they would drive down the street holding the steering wheel with one hand and their phone in the other. Ms. Raghvendra's concern led her to conduct experiments with a PlayStation driver simulation game, noticing that whether one was holding the phone and driving or putting it on speakerphone and driving, they were still distracted. From this, Ms. Raghvendra learned that no matter the type of distraction, cognitively doing multiple tasks simultaneously poses a risk while on the road.

As she grew older, her science fair projects and fieldwork for the Synopsys Championship became more advanced, earning awards that led her to the International Science Fair (ISEF). Additionally, during her high school career, Ms. Raghvendra was given the opportunity to intern at Stanford, where she later went to college. Throughout this internship, Ms. Raghvendra spent time working in a biology lab researching stem cells in bones and fat. Working in a hands-on professional lab allowed Ms. Raghvendra to dive deeper into experimentation while exploring various areas of science.

Ms. Raghvendra currently works in the computer science field at Cohere, an artificial intelligence company that specializes in developing models to help enterprises adopt AI into their daily functions. Within her current job, Ms. Raghvendra notices that there are many similarities with what she does today and what she learned from science fair. She highlights the importance of the scientific methodology that can be seen in all aspects of science, whether it is a biology lab or in a computer science occupation. Ms. Raghvendra also emphasizes the importance of control, a lesson that she learned from science fair. Control testing, when multiple variables are not manipulated at the same time, are skills that Ms. Raghvendra stresses are evident in her everyday life.

After participating in multiple science fairs through her schooling career, Ms. Raghvendra advises participants to understand the importance of communication. She highlights that the difference between having a good project and a great project is the way one communicates their findings with the public. At Cohere, Ms. Raghvendra notices that her skill of presenting information and sharing with the audience effectively is constantly valuable. She urges all students to continue participating in science fairs each year, emphasizing that consistent practice will lead to significant improvement over time. ✓

# Thank you to Reviewers of the Projects

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Cupertino City Council student recognition



Santa Clara City Council student recognition

# Help Us Secure the Future of Our Science Fair – Seeking a New Title Sponsor

Dear Parents,

I hope this message finds you well. As you know, our annual county Science Fair is a beloved event that highlights the incredible talents and hard work of our student participants. For the past 25 years, we have been fortunate to have the unwavering support of the Synopsys Outreach Foundation as the title sponsor. As they step down from the title sponsorship, we thank them for their contributions.

The Science Fair is seeking a new major sponsor and that is where you come in. If you know of anyone senior (e.g. CEO, chief of staff, member of the board, C-level executives) at a local Tech company, or businesses, organizations, or individuals, you could introduce us to, we would love to hear from you. The support of a new major sponsor will ensure that our students continue to have the opportunity to participate in this enriching experience and help us maintain the high standards of the event.

If you have any connections or would like more information about how sponsorship works, please feel free to reach out to me directly. Your help during this critical time is invaluable, and we truly appreciate your support.

Thank you for being a part of this amazing community and for helping us secure the future of our Science Fair.

Warmest regards,  
Sandra A. Meditch  
President  
Board of Directors

Santa Clara Valley Science and Engineering Fair Association

<https://science-fair.org/>  
email [smeditch@yahoo.com](mailto:smeditch@yahoo.com)







Tanish, 11th grader, discussing his autonomous drone at the Fair in 2024

## Please Donate

Your collective support to the Synopsys Science and Engineering Championship is vital to our continuing excellence & success. We hope that your positive experiences with our event persuades you to join our register of financial benefactors as well as to connect us with prospective major sponsors for the future. We hope that you have personally witnessed how this major event contributes to your student's intellectual growth and advancement that opens multiple fantastic opportunities. We invite you to contribute to preserving this showcase platform for innovation research & learning, ensuring the fair remains a beacon for young minds. Your donation, big or small, is an investment in our children's future and the broader realm of science and engineering. We call on you to help us navigate the present financial challenges by generously donating to this special program.

Thank you so much for your support of the Santa Clara Valley Science and Engineering Fair Association!



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