

2019 GSDSEF Senior Division Categorical Awards by Place

Place	Proj#	Team	Category	Last Name	First Name	Grade	Project Title	School	Teacher
1st	101		Animal Sciences	Huang	Aaron	10	How is Anxiety in C. elegans Affected by Increased Signs of Predators?	Canyon Crest Academy	Ariel Haas
1st	107		Behavioral & Social Sciences	Cai	Sean	10	Analyzing Stratified Ethical Behavior at Executive Levels with Firm-Corruption Shareholder Models	Scripps Ranch High	Elaine Gillum
1st	113		Behavioral & Social Sciences	Patil	Pranav	11	Determining the Effectiveness of Video Games in Cybersecurity Education	Del Norte High	Frank Liao
1st	115		Behavioral & Social Sciences	Young	Caneel	11	Is Lactobacillus Rhamnosus the Solution to Anxiety Relief?	Canyon Crest Academy	Ariel Haas
1st	119		Biochemistry	Gan	Jessie	10	Using Bioinformatics Tools to Identify Epitopes in MMP-15, a Potential Lung Cancer Drug Target	San Diego Jewish Academy	Cheryl Eisen
1st	129		Chemistry	Chaudhuri	Anushree	11	A Porous Silicon Optical Nanosensor for Toxic Organic Vapors	Westview High	Diana Loo
1st	131		Chemistry	Murray	Will	11	Understanding Ratiometric Imaging of Porous Silicon (pSi) Nanoparticles for Functional Imaging and Selective Sensing Applications	Francis Parker School	Jonathan Ziegler
1st	133		Computer Science	Chowdhuri	Sauhaarda	11	PhonoNet: Deep Learning For Raga Identification In Indian Classical Music	Westview High	Dom David
1st	134		Computer Science	Elarabawy	Adham	11	Predicting Optimal Farming Regions via Machine Learning Trained on Novel Vegetation Index	Canyon Crest Academy	Ariel Haas
1st	135	T	Computer Science	Fan	Leonard	11	Predicting Blood Glucose Level In Type 1 Diabetes Patients Using Recurrent Neural Networks	Canyon Crest Academy	Ariel Haas
1st	135	T	Computer Science	Hsieh	Jonathan	11	Predicting Blood Glucose in T1D Patients Using Recursive Neural Networks	Canyon Crest Academy	Ariel Haas

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1st	138		Computer Science	Levine	Alex	12	Efficiently Identifying High-Centrality Actors in Modular Networks	La Jolla High	Holly Eaton
1st	139		Computer Science	Liu	Daniel	11	Extending Adversarial Attacks and Defenses to Deep 3D Point Cloud Classifiers	Torrey Pines High	Julia Newman
1st	143		Computer Science	Soliman	Ziyad	9	Pass Your Bill: Understanding Legislation Using Machine Learning	Mt. Everest Academy	Najwan Naserelddin
1st	145		Computer Science	Wu	Dustin	11	Convolutional Neural Network Ensemble For Histopathologic Cancer Metastasis Detection	Pacific Ridge High	Rajshree Mudaliar
1st	160		Engineering - Energy & Transport	Schremmer	Zachary	11	Stirling Engine Combined Heat and Power Systems	University City High	Maureen Quessenberry
1st	151		Engineering: Electrical & Mechanical	Bodenhamer	Tyler	9	Engineering a 3D Printer Built with Recycled Computer Parts	Serra High	Daniel Gonja
1st	156		Engineering: Electrical & Mechanical	Peluso	Brent	12	Electrothermally Cooling a Pitcher's Arm	Canyon Crest Academy	Ariel Haas
1st	157		Engineering: Electrical & Mechanical	Reddy	Rakesh	11	Affordable Off-site 3D-printable Below-the-Knee (BKA) Prosthesis	Francis Parker School	Jonathan Ziegler
1st	159		Engineering: Energy & Transport	Lew	Ken	11	Graphene Composite Material and Heatsink Application in Fire Resistant Drone Design	La Jolla Country Day School	Daniel Padgett
1st	162		Engineering: Materials & Bioengineering	Caligiuri	Christopher	10	BrainBot: Integrated Robotics Platform for Modeling and Interacting with Cortical Organoids	Canyon Crest Academy	Ariel Haas
1st	163	T	Engineering: Materials & Bioengineering	Catanzaro	Francisco	10	Measuring Chlorophyll Fluorescence and Spectral Reflectance for the Remote Sensing of Agriculture	Cathedral Catholic High	Tracey Milani
1st	163	T	Engineering: Materials & Bioengineering	Catanzaro	Isabella	12	Measuring Chlorophyll Fluorescence and Spectral Reflectance for the Remote Sensing of Agriculture	Cathedral Catholic High	Tracey Milani

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1st	165	T	Engineering: Materials & Bioengineering	Gurram	Sumanth	12	Electromagnetic Fields Inhibit Cancer Proliferation: An Interdisciplinary Approach to Improve Treatment	Westview High	Scott Halander
1st	165	T	Engineering: Materials & Bioengineering	Wu	David	12	Electromagnetic Fields Inhibit Cancer Proliferation: An Interdisciplinary Approach to Improve Treatment	Westview High	Scott Halander
1st	169		Engineering: Materials & Bioengineering	Pollner	Alina	11	Super-Mendelian Inheritance Mediated by CRISPR-Cas9: Bioengineering Plant Genomes to Increase Crop Production	Canyon Crest Academy	Ariel Haas
1st	172		Engineering: Materials & Bioengineering	Reeb	Remy	11	Reducing the Incidence of Falls Among the Elderly	Cathedral Catholic High	Jeanette Lopatka
1st	173		Engineering: Materials & Bioengineering	Tianshi	Emily	10	Biomimicking Torrey Pine Needles: Atmospheric Moisture Harvesting Through Alternating Hydrophilic/Hydrophobic Micro-	The Cambridge School HS	Melissa Mayne
1st	179		Environmental Sciences & Management	Tucker	Timothy	11	Vehicle Emissions and Tropospheric Ozone	Bonita Vista High	Michelle Mardahl-Dumesnil
1st	182		Mathematical Sciences	Faktor	Benjamin	10	Solution Of Lotka-Volterra Equations For Novel Analysis	Canyon Crest Academy	Ariel Haas
1st	183		Mathematical Sciences	Madhukara	Rachana	11	Error Term Analysis for Weighted Character Sums	Canyon Crest Academy	Ariel Haas
1st	187		Medicine & Health Sciences	Agashe	Ruchi	11	Identification of Treatments for Hemophilic Joint Disease through Evaluation of Vascular Defects via Optimization of Imaging	Canyon Crest Academy	Ariel Haas
1st	190		Medicine & Health Sciences	Dogra	Arushi	11	Effects of Novel Dual PI3K-BRD4 Inhibitor SF2523 on Mantle Cell Lymphoma Survivorship	Del Norte High	Lisa Smedley
1st	195		Medicine & Health Sciences	Lee	Ji Hyun	12	Creating a Three Dimensional Airway Cell Culture to Study Asthma	Canyon Crest Academy	Ariel Haas
1st	196		Medicine & Health Sciences	Liu	Andrea	12	The Role of G-CSF-R in Medulloblastoma Cancer Stem Cells and Pathogenesis	Canyon Crest Academy	Ariel Haas

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1st	200		Medicine & Health Sciences	Randhawa	Omer	11	The Impact of the APOE gene on Alzheimer's Gender Discrepancy Genetics	Scripps Ranch High	Elaine Gillum
1st	202		Medicine & Health Sciences	Tahan	Alexander	10	Enhanced MAF Gene Expression as a Novel Strategy for Cancer Treatment	Canyon Crest Academy	Ariel Haas
1st	203		Medicine & Health Sciences	Tang	Jason	10	USP7 Inhibitor as a Novel Therapeutic Treatment for Triple Negative Breast Cancer	Canyon Crest Academy	Ariel Haas
1st	205		Medicine & Health Sciences	Wang	Kaitlyn	11	shRNA-Mediation of UGGT1 to Modulate Excessive Procollagen Secretion in Cardiac Fibrosis	Canyon Crest Academy	Ariel Haas
1st	209		Microbiology	Kang	Emily	10	Turning Over A New Phage: A Novel Approach To Phage Therapy	Canyon Crest Academy	Ariel Haas
1st	216		Physics & Astronomy	Broudy	Isaac	11	Developing a Linear Polarimeter for Astrophysical Tests of Beyond Standard Model Physics	Bonita Vista High	Michelle Mardahl-Dumesnil
1st	217		Physics & Astronomy	Holst	Mason	10	An Optimized Multigrid Algorithm for Enabling Efficient Physical Simulations on Realistic Geometries	Canyon Crest Academy	Ariel Haas
1st	218		Physics & Astronomy	Vijayakumar	Vivek	10	Analysis of Molecular Spectra in AGB Carbon Stars	San Marcos High	Robert Terrill
1st	221		Plant Sciences	He	David	10	Effect Of Genetic Modification Of DMR6 On Solanum Lycopersicum	Canyon Crest Academy	Ariel Haas
2nd	105		Behavioral & Social Sciences	Bahena Hernandez	Laritza	9	In School vs Out of School Therapy	Gompers Preparatory Academy	Jessica Ulllyott
2nd	106		Behavioral & Social Sciences	Belbese	Ahmed	11	Training Makes Perfect	Charter School of San Diego	Najwan Nasereldin
2nd	108		Behavioral & Social Sciences	Chung	Claire	10	Analyzing Correlative Evidence Between Social Media Use and Depressive Symptoms	Rancho Bernardo High	Diane Hotz

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2nd	110		Behavioral & Social Sciences	Gutierrez	Andrea	9	Filter or No Filter	Vincent Memorial Catholic High	Montserrat Turner
2nd	114		Behavioral & Social Sciences	Stallworth	Kayla	10	The Effect of Music on Human Reaction Time	Central Union High	Lourdes Rueda
2nd	121		Biochemistry	Verdolin	Michael	11	Pyogenic Urine May Affect Accuracy of LCMS Urine Drug Testing	Eastlake High	Cheryl Bayley
2nd	123		Biochemistry	Wong	Elleanor	12	Investigation of Hydrolytic Enzymes Present in Commercial Probiotics Using Starch and Lactose	Bonita Vista High	Michelle Mardahl-Dumesnil
2nd	125		Biochemistry	Yao	Derrick	11	Machine Learning Based Primer Design for Recombinase Polymerase Amplification	Canyon Crest Academy	Ariel Haas
2nd	126		Biochemistry	Zhang	Paul	10	Computational Discovery of Novel PIEZO2 Inhibitors to Potentially Treat Tactile Allodynia	Canyon Crest Academy	Ariel Haas
2nd	137	T	Computer Science	Granja	Tatiana	10	Food Fetch	San Pasqual High	Erin Duran
2nd	137	T	Computer Science	Yang	Macey	10	FoodFetch	San Pasqual High	Erin Duran
2nd	140		Computer Science	Lu	Junyi	11	Air and Quality Detector	Canyon Crest Academy	Ariel Haas
2nd	142		Computer Science	Rao	Adithya	11	Android AiSL : American Sign Language (ASL) Fingerspelling to Speech Translator Using Artificial Intelligence on Android	Canyon Crest Academy	Ariel Haas
2nd	144		Computer Science	Sumpena	Edmund	9	aTrack: Cost-Effective Asset Tracking Based on Cooperative Crowdsourced Mobile Sensors	Westview High	Scott Halander
2nd	146		Computer Science	Yaramada	Sahithy	11	Detecting Abnormal RBCs with Computer Vision	Canyon Crest Academy	Ariel Haas

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2nd	150		Engineering: Electrical & Mechanical	Amanullah	Yusuf	10	An Advanced Bicycle Safety System to Prevent Rider Injuries	Mt. Everest Academy	Norm Negus
2nd	153		Engineering: Electrical & Mechanical	Dehaini	Hamza	10	Reducing the Amount of Wildfires Caused by Power Line Snapping	Scripps Ranch High	Najwan Nasereldin
2nd	155		Engineering: Electrical & Mechanical	Kuo	Marc	9	Visual Field Mapping By Embedded LED Array	La Jolla High	James Kuo
2nd	161	T	Engineering: Materials & Bioengineering	Beg	Harris	11	A Novel Approach to Dermatology via Neural Networks	Canyon Crest Academy	Ariel Haas
2nd	161	T	Engineering: Materials & Bioengineering	Sun	William	12	A Novel Approach to Portable Dermatology	Canyon Crest Academy	Ariel Haas
2nd	166	T	Engineering: Materials & Bioengineering	Huang	Ryan	9	A Microbiome - AI Sensor for Detection of UV Risk	Canyon Crest Academy	Ariel Haas
2nd	166	T	Engineering: Materials & Bioengineering	Huang	Tristan	11	A Microbiome - AI Sensor for Detection of UV Risk	Canyon Crest Academy	Ariel Haas
2nd	168		Engineering: Materials & Bioengineering	Palayur	Ann	11	Computerized Muscle Control for Paralyzed Patients Using Non-Toxic Batteries	St. Joseph Academy	Paul Kerekes
2nd	170	T	Engineering: Materials & Bioengineering	Rabe	Heidi	12	Improvising Instruments	Central Union High	Lourdes Rueda
2nd	170	T	Engineering: Materials & Bioengineering	Rosales	Ricardo	12	Improvising Instruments	Central Union High	Lourdes Rueda
2nd	171		Engineering: Materials & Bioengineering	Randhawa	Waleed	9	A Digital Dual-Hormone Artificial Pancreas: A Year Two Study	Scripps Ranch High	Elaine Gillum
2nd	176		Environmental Sciences & Management	Decilap	Ambre	12	The Effect of Nitrate Runoff on Microbial Fuel Cells	Bonita Vista High	Michelle Mardahl-Dumesnil

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2nd	180	T	Environmental Sciences & Management	Vargas	Alfred	12	Photocatalytic Treatment of Wastewater and Generation of Electricity Through Hydrogen Fuel Cell Technology	Sweetwater Union High	Sofia Sandoval
2nd	180	T	Environmental Sciences & Management	Vargas	Audrey	10	Photocatalytic Treatment of Wastewater and Generation of Electricity Through Hydrogen Fuel Cell Technology	Sweetwater Union High	Sofia Sandoval
2nd	184		Mathematical Sciences	Shimabukuro	Benjamin	10	Coin Flip Fairness	Mt. Everest Academy	Huy Tran
2nd	189	T	Medicine & Health Sciences	De La Rosa	Alexis	12	Sensory Screening Test For Dementia	Central Union High	Lourdes Rueda
2nd	189	T	Medicine & Health Sciences	Negrete	Alexis	11	Sensory Screening Test for Dementia	Central Union High	Lourdes Rueda
2nd	191	T	Medicine & Health Sciences	Gandarilla	Sofia	11	Bye Bye Bacteria	Eastlake High	Cheryl Bayley
2nd	191	T	Medicine & Health Sciences	Nogueira	Tamara	11	Bye Bye Bacteria	Eastlake High	Cheryl Bayley
2nd	194		Medicine & Health Sciences	Lara	Mary Jasmine	12	PHLPP's Protective Properties: Nicotine's Attenuation on Drug Therapies Targeting Cardiac Arrest	Olympian High	Michael Claudio
2nd	197		Medicine & Health Sciences	Mandyam	Atulya	9	Cell-death by Methamphetamine is related to increased activation of Caveolin-1 and Kinases	Westview High	Matt Christopher
2nd	199		Medicine & Health Sciences	Piccioni	Sofia	11	Novel Method Using CRISPR CAS9 to Change K562 Cells' Blood Type	Canyon Crest Academy	Ariel Haas
2nd	201		Medicine & Health Sciences	Suri	Umit	11	Risk Factors and Outcomes of Infants with Pneumothorax	Francis Parker School	Jonathan Ziegler
2nd	210		Microbiology	Mulvehill	Allison	11	The Effects of Sodium Benzoate on Micronuclei Occurrence in HEK293 Cells	Canyon Crest Academy	Ariel Haas

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2nd	212		Microbiology	Rainey	Georgia	9	The Effect of Different Colored Lights on Dinoflagellate Luminescence	Mt. Everest Academy	Athena Apazidis
2nd	213		Microbiology	Zhu	Wanyi	10	Role of dpy-13 in Osmotic Stress Resistance in Caenorhabditis Elegans Eggs	Canyon Crest Academy	Ariel Haas
3rd	109	T	Behavioral & Social Sciences	Dela Rosa	Patrick	9	The Effect of Regular Mode versus Night Mode on iPhone User's Sleep during School Days	Sweetwater Union High	Sofia Sandoval
3rd	109	T	Behavioral & Social Sciences	Flores	Raffiele	9	The Effect of Regular Mode versus Night Mode on iPhone User's Sleep during School Days	Sweetwater Union High	Sofia Sandoval
3rd	111		Behavioral & Social Sciences	Jimenez	Cesar	9	Concussions and Memory	Eastlake High	Cheryl Bayley
3rd	112	T	Behavioral & Social Sciences	Orozco	Savanah	10	Typed vs Handwritten Notes	Central Union High	Lourdes Rueda
3rd	112	T	Behavioral & Social Sciences	Reyna Montoya	Alex	10	Typed vs. Handwritten Notes	Central Union High	Lourdes Rueda
3rd	118		Biochemistry	Del Olmo	Sarah	12	Does a Peeled Apple a Day Keep the Doctor Away?	Bonita Vista High	Michelle Mardahl-Dumesnil
3rd	122		Biochemistry	Vu	Elise	10	Gene Expression and Repression in Embryonic Stem Cells and Neural Progenitor Cells	Canyon Crest Academy	Ariel Haas
3rd	124		Biochemistry	Yang	Joyce	11	Effect of shRNA on GnRH-R Synthesis	Canyon Crest Academy	Ariel Haas
3rd	136		Computer Science	Fowler	Lou	9	The Red Schoolhouse: A Tool For Assessing Environmental Risk In SDUSD Schools	Academy of Our Lady of Peace	Margaret Wiedower
3rd	141		Computer Science	Park	Seonggeun	11	Physics Phun: The Gamification of Physics Education through a Mobile App	Olympian High School	Michael Claudio

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3rd	152	T	Engineering: Electrical & Mechanical	Cantwell	Amanda	12	Sensing Your Concentration	Central Union High	Lourdes Rueda
3rd	152	T	Engineering: Electrical & Mechanical	Plancarte	Victor	12	Sensing Your Concentration	Central Union High	Lourdes Rueda
3rd	167		Engineering: Materials & Bioengineering	Kuo	James	10	Semi-permeable Membrane to Minimize Traffic Disruptions When Re-painting Roads	La Jolla High	James Kuo
3rd	177		Environmental Sciences & Management	Nafarrete	Noah	11	The Impact of Plants on Soil Erosion and Turbidity	Bonita Vista High	Michelle Mardahl-Dumesnil
3rd	178		Environmental Sciences & Management	Sung	Anthony	9	Go Green Roofs	The Cambridge School HS	Melissa Mayne
3rd	188	T	Medicine & Health Sciences	Cibrian	Alecsander	10	Pizza Grease	Central Union High	Lourdes Rueda
3rd	188	T	Medicine & Health Sciences	Tanori	Efrain	10	Pizza Grease	Central Union High	Lourdes Rueda
3rd	192		Medicine & Health Sciences	Hammad	Tasneem	9	The Effect of Natural Remedies and Nanoparticles on Cells	Bright Horizon Academy	Najwan Naserelddin
3rd	198		Medicine & Health Sciences	Matute	Nachelle	12	The Effects of Music on the Heart	Bonita Vista High	Michelle Mardahl-Dumesnil
3rd	204		Medicine & Health Sciences	Wang	Kate	10	A Computational Approach for Modeling Nonsense Mutations in DMD	Canyon Crest Academy	Ariel Haas
3rd	208		Microbiology	Chang	James	10	Creating a Strain of IFN-Producing Bacteria which Survives in Human Gut	Canyon Crest Academy	Ariel Haas
3rd	211		Microbiology	Murthy	Adhithi	9	Finding An Alternative to Antibiotics: Year 3	Del Norte High	Elaine Gillum

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3rd	215		Physics & Astronomy	Barrett	Brianna	10	The Effect of Weather on the Speed of a Softball	Central Union High	Lourdes Rueda
3rd	220		Plant Sciences	Camacho	Karla	12	Effect of Microwave Radiation on <i>Raphanus sativus</i> and <i>Saccharomyces cerevisiae</i>	Central Union High	Lourdes Rueda
4th	120		Biochemistry	Montano	Luz	10	Brightness of Luminol	Central Union High	Lourdes Rueda
4th	147		Computer Science	Zhuang	Hsiang-Kuang	9	The Most Effective Characteristics of a Secure Password	Mt. Everest Academy	Athena Apazidis
4th	154		Engineering: Electrical & Mechanical	Duong	Han	9	Power of Turbines	Eastlake High	Cheryl Bayley
4th	186		Medicine & Health Sciences	Abdurrahman	Hasan	9	Viability of Smartphone Hearing Test Applications for Early Hearing Loss Detection	Mt. Everest Academy	Athena Apazidis