Place Award	Division	Category	Student Name	Project Title	School
1st Place	Junior	Aerospace Engineering	Tram Huynh	Designing a Robotic Model for Debris Retrieval	SST - Champions College Prep - MS
1st Place	Junior	Animal Science	Caden Pohlkamp	Shedding Light On Galveston's Missing Nests: How Light Pollution And Sand Characteristics Affect Kemp's Ridley Sea Turtle Nesting Locations	Brookside Intermediate School
1st Place	Junior	Behavioral and Social Sciences	Vihaan Shah	PeerSense: Predictive Modeling of Substance Use Risk Based on Peer Pressure Susceptibility in Adolescents	Creekside Park JH
1st Place	Junior	Biochemistry and Microbiology	Myreen Ahsan	Millions to Molecules: Dual-Mechanism Small-Molecule Discovery via HTVS and Machine Learning-Guided Molecular Dynamics for Frontotemporal Dementia	Friendswood Junior High
1st Place	Junior	Biomedical Engineering	Shubham Yadav	Enhancing Electronic Nose Specificity for Non-Invasive Disease Screening: A VOC Classification Approach via Dynamic UV-Thermal Modulation	Knox Junior High
1st Place	Junior	Chemical Engineering & Materials Science	Aria Allen	From Garbage to Growth: Using Organic Waste to Create Hydrophilic Biopolymers for Water Conservation and Agricultural Purposes	Spring Branch Academic Institute
1st Place	Junior	Chemistry	Ashvin Ghanta	Oxygen from Electricity: Bioelectric Hydrogels for Healing	The Emery/Weiner School
1st Place	Junior	Chemistry	Avighna Ghanta	Oxygen from Electricity: Bioelectric Hydrogels for Healing	The Emery/Weiner School
1st Place	Junior	Earth and Environmental Sciences	Sanaa Narasimhan	The Effects of Salt, Acid, and Insecticides on Radish Plant Health	ST. JOHN'S SCHOOL
1st Place	Junior	Embedded Systems	Ganeev Jaswal	HydroSentinel: A Distributed IoT Safety Net for Aging Public Water Systems Using Multi-Modal Sensors for Pipeline Leak, Contamination Detection, and Pump Health Monitoring	Fort Settlement Middle School
1st Place	Junior	Energy and Transportation	Logan Nagel	VAWTs the Journey Continues	Brookside Intermediate School
1st Place	Junior	Engineering Mechanics	Sai Sahasra Maram	PediaFlex: A Bioinspired, Expandable Pediatric Prosthetic employing a Pneumatic system to enhance K levels and Long-Term use for Transfemoral Leg Amputation Patients	Quail Valley Middle School
1st Place	Junior	Environmental Engineering	Alyssa Janco	The Effects of Glycerin Concentration on the Decomposition of Starch-Based Biodegradable Bioplastics	The Emery/Weiner School
1st Place	Junior	Mathematics	Ansh Gupta	Twisting Braids with Group Theory: Cryptography Future beyond Primes	McCullough Junior High
1st Place	Junior	Medicine and Health	Adel Sisy	Delta Protein Atlas	Homeschool
1st Place	Junior	Physics and Astronomy	Yasmine Ashraf	The Effects Of Voltage On The Performance Of A Motor	Houston Quran Academy - Spring - MS
1st Place	Junior	Plant Sciences	Hannah Li	Can a Plant Eat Plastic?: Assessing the Efficiency of Nepenthes Digestive Fluid in Decomposing Synthetic Polymers	TAYS Junior High - MS
1st Place	Junior	Robotics and Intelligent Machines	Reyansh Gupta	Implementing a Hybrid CNN-Transformer Model for ASL Fingerspelling Translation	Willow Wood - JH
1st Place	Junior	Software Design	Vihaan Ganga	FallResQ : An AI-Powered App To Save Lives After A Fall	Friendswood Junior High
1st Place	Senior	Aerospace Engineering	Cayson Wang	AeroHive: A Novel Honeycomb Electrohydrodynamic Thruster Array with Vectorized Propulsion	AST: Academy of Science and Technology
1st Place	Senior	Animal Science	Iris Shen	Year III: Development of M. mercenaria Neoplastic Hemocytes as a Novel Alternative Experimental Model for BCL-2 Interactions in Blood Cancers: An Application for Targeted Drug Studies	AST: Academy of Science and Technology
1st Place	Senior	Behavioral and Social Sciences	Geoffrey Liu	A gamified go/no-go paradigm replicates behavioral and neural signatures of inhibitory control in neurosurgical patients	Glenda Dawson - HS
1st Place	Senior	Biochemistry and Microbiology	Amarechi Okorafor	Novel In-Silico Rational Design of a Hyper-Thermostable Chimeric PETase via Rigid Alpha-Helical Linker Fusion for Enhanced Industrial Plastic Depolymerization	Bridgeland - HS
1st Place	Senior	Biochemistry and Microbiology	Aryan Atri	Novel In-Silico Rational Design of a Hyper-Thermostable Chimeric PETase via Rigid Alpha-Helical Linker Fusion for Enhanced Industrial Plastic Depolymerization	Bridgeland - HS
1st Place	Senior	Biochemistry and Microbiology	Ayushmaan Singh	Novel In-Silico Rational Design of a Hyper-Thermostable Chimeric PETase via Rigid Alpha-Helical Linker Fusion for Enhanced Industrial Plastic Depolymerization	Bridgeland - HS
1st Place	Senior	Biomedical Engineering	Jiya Joshi	POCKET: A Multiplexing Point-of-care Kinetic Electrochemical Test using Aptamers for Accessible, Rapid Diagnostics	Travis High School
1st Place	Senior	Biomedical Engineering	Sai Spoorthi Maram	POCKET: A Multiplexing Point-of-care Kinetic Electrochemical Test using Aptamers for Accessible, Rapid Diagnostics	Travis High School
1st Place	Senior	Chemical Engineering & Materials Science	Derek Jiu	Low-Cost Nanocrystalline Nickel Reinforcement of Additively Manufactured Thermoplastics for High-Stress, Aggressive Chemical Environments	ST. JOHN'S SCHOOL
1st Place	Senior	Chemistry	Madeleine Melancon	Controlling Drug Release from Alginate Hydrogel Beads Using Polymer Coatings	Carnegie Vanguard HS
1st Place	Senior	Earth and Environmental Sciences	Karishma Parghi	Triple Threat: Leveraging Functionalized Hydrogels, Magnetic Amplification, and Electrostatic Filtration in a Multimodal System for Optimized Water Purification	AST: Academy of Science and Technology
1st Place	Senior	Earth and Environmental Sciences	Rishabh Yadav	Triple Threat: Leveraging Functionalized Hydrogels, Magnetic Amplification, and Electrostatic Filtration in a Multimodal System for Optimized Water Purification	AST: Academy of Science and Technology
1st Place	Senior	Embedded Systems	Shriya Venkat	EcoHawk: YOLOv11 Low-Altitude Drone System for Simultaneous Detection, Geospatial Quantification, and Risk Mapping of Invasive Species with Real-Time Authority Notification	AST: Academy of Science and Technology
1st Place	Senior	Energy and Transportation	Claire Zhou	Causal Machine Learning for Optimal Completion Control in Permian Basin Shale Oil Production.	Dulles High School
1st Place	Senior	Engineering Mechanics	Rafael d'Souza	Rediscovering GEVs: A Novel Ground Effect Vehicle Design and Intelligent Control System For Efficient Air Transportation	ST. JOHN'S SCHOOL
1st Place	Senior	Environmental Engineering	James Li	LSTM-Based Early Flood Warning	The Village School
1st Place	Senior	Mathematics	Sahil Kulkarni	GerrySim: A Markov Chain Monte Carlo Framework for Reducing Partisan and Racial Gerrymandering	AST: Academy of Science and Technology
1st Place	Senior	Medicine and Health	MANAS TELIKEPALLI	Frankenstein-Synuclein: Rational Engineering of a De Novo Replacement Protein via an In-Silico Pipeline for Parkinson's Disease Prevention	AST: Academy of Science and Technology
1st Place	Senior	Medicine and Health	MANASHWIN NELLURI	Frankenstein-Synuclein: Rational Engineering of a De Novo Replacement Protein via an In-Silico Pipeline for Parkinson's Disease Prevention	AST: Academy of Science and Technology
1st Place	Senior	Physics and Astronomy	Avi Singa	Investigating Error Detection Efficiency with Hypergraph-Linked Qubit States	AST: Academy of Science and Technology
1st Place	Senior	Physics and Astronomy	Shubam Vennu	Investigating Error Detection Efficiency with Hypergraph-Linked Qubit States	AST: Academy of Science and Technology
1st Place	Senior	Plant Sciences	Vibhan Emmi	Optimization of Spartina alterniflora–Microbe Interactions to Enhance Methane Degradation in Wetland Environments	AST: Academy of Science and Technology
1st Place	Senior	Robotics and Intelligent Machines	Luca Chang	Breaking Bad: An Analysis on Attacking Feed-Foward Networks within Modern Day Transformers	ST. JOHN'S SCHOOL
1st Place	Senior	Software Design	May Espinola	Object Centric Reinforcement Learning for Sim-to-Real Dexterous Manipulation	Tompkins - HS
2nd Place	Junior	Aerospace Engineering	Akshin Vedanth	Where are the space-junk hotspots? Mapping object density by altitude in Earth orbit.	Friendswood Junior High
2nd Place	Junior	Aerospace Engineering	Surya Alli	Where are the space-junk hotspots? Mapping object density by altitude in Earth orbit.	Friendswood Junior High
2nd Place	Junior	Animal Science	Adithya Akula	Analyzing the Effects of Fertilizer on the Survival Rate of Red Wigglers	McCullough Junior High

2nd Place	Junior	Behavioral and Social Sciences	Veda Valiveti	Making Sense Of Altruism	Knox Junior High
2nd Place	Junior	Biochemistry and Microbiology	Reed Glisson	Lights On, or Off? Part 2.	Brookside Intermediate School
2nd Place	Junior	Biomedical Engineering	Parjanya Yelisetty	Project Parasight: Seeing Malaria Through the Lens of AI	Irons Junior High
2nd Place	Junior	Biomedical Engineering	SaiShruti Kondeti	Project Parasight: Seeing Malaria Through the Lens of AI	Irons Junior High
2nd Place	Junior	Chemical Engineering & Materials Science	Iniya Balamurugan	Exploring the Integration of Nitinol in Modern Bridge Engineering to Enhance Resilience Against Natural Disasters and Stress	TAYS Junior High - MS
2nd Place	Junior	Chemistry	Niva Varia	A Dive into Protection :Mineral vs Chemical Sunscreens	Knox Junior High
2nd Place	Junior	Earth and Environmental Sciences	Ihsan Kanli	Pipes Bursting Under Cold Weather	Harmony School of Excellence-Houston
2nd Place	Junior	Earth and Environmental Sciences	Logan Garcia	Pipes Bursting Under Cold Weather	Harmony School of Excellence-Houston
2nd Place	Junior	Earth and Environmental Sciences	Reyansh Maheshwari	Pipes Bursting Under Cold Weather	Harmony School of Excellence-Houston
2nd Place	Junior	Embedded Systems	Aarvi Thota	Wearable Biometrics–Integrated Model for Early Detection of Nighttime Arrhythmia Risk	Sartartia Middle School
2nd Place	Junior	Embedded Systems	Sanjana Ganglani	Wearable Biometrics–Integrated Model for Early Detection of Nighttime Arrhythmia Risk	Sartartia Middle School
2nd Place	Junior	Energy and Transportation	Nathan Feng	Proximal Policy Optimization in Traffic Congestion	McCullough Junior High
2nd Place	Junior	Energy and Transportation	Pranav Ramprasad	Proximal Policy Optimization in Traffic Congestion	McCullough Junior High
2nd Place	Junior	Engineering Mechanics	Nidhyana Parghi	Building bridges: Arduino Based Tensile Strength Mapping of Varying Cantilever Bridge Designs	Collins Intermediate
2nd Place	Junior	Environmental Engineering	Arjun Gajja	Eutrophication: P-N (Phosphorus-Nitrogen) Monitor	Quail Valley Middle School
2nd Place	Junior	Environmental Engineering	Atish Anuramchand	Eutrophication: P-N (Phosphorus-Nitrogen) Monitor	Quail Valley Middle School
2nd Place	Junior	Environmental Engineering	Shreehan Pawar	Eutrophication: P-N (Phosphorus-Nitrogen) Monitor	Quail Valley Middle School
2nd Place	Junior	Mathematics	Alexandra Noyes	Making Music with Markov Chains	Westbrook Intermediate School
2nd Place	Junior	Medicine and Health	Amira Oueini	Effect of Near-Infrared Light on Heart Rate in Daphnia magna Under Sugar Stress	Westbrook Intermediate School
2nd Place	Junior	Physics and Astronomy	Patricio Molina Velazquez	Sound travel	BCM Biotech Academy at Rusk - MS
2nd Place	Junior	Plant Sciences	Alicia Repka	Basalt Soil for a Better World	McCullough Junior High
2nd Place	Junior	Plant Sciences	Daisy Chen	Basalt Soil for a Better World	McCullough Junior High
2nd Place	Junior	Robotics and Intelligent Machines	Aashi Rajasekar	Water Sensor: Saving lives and water	Fort Settlement Middle School
2nd Place	Junior	Software Design	Anjali Balne	Multimodal AI Combining Chest X-rays and Clinical Data to Diagnose Tuberculosis	Irons Junior High
2nd Place	Junior	Software Design	Bhavana Thambireddy	Multimodal AI Combining Chest X-rays and Clinical Data to Diagnose Tuberculosis	Irons Junior High
2nd Place	Senior	Aerospace Engineering	Asa Gangjee	From Single-Use to Repeatable: A Reusable Hybrid Rocket Engine for Accessible, High-Fidelity Propulsion Experimentation	ST. JOHN'S SCHOOL
2nd Place	Senior	Aerospace Engineering	Suman Muppavarapu	From Single-Use to Repeatable: A Reusable Hybrid Rocket Engine for Accessible, High-Fidelity Propulsion Experimentation	ST. JOHN'S SCHOOL
2nd Place	Senior	Animal Science	Joyce Ma	Assessing Planarian Lipid Raft–Enriched Extracellular Vesicles as a Therapy to Restore Biochemical and Behavioral Rescues in a D-Galactose–Induced Neurodegeneration Model in Drosophila melanogaster	TWHS: The Woodlands High School
2nd Place	Senior	Animal Science	Yash Bhoda	Assessing Planarian Lipid Raft–Enriched Extracellular Vesicles as a Therapy to Restore Biochemical and Behavioral Rescues in a D-Galactose–Induced Neurodegeneration Model in Drosophila melanogaster	TWHS: The Woodlands High School
2nd Place	Senior	Behavioral and Social Sciences	Cera Easterwood	A Novel Approach To Programming Suggested Dietary Alterations For Optimal Mental Health: Year II	AST: Academy of Science and Technology
2nd Place	Senior	Biochemistry and Microbiology	Sanjan Sarang	Inhibition of the Pathological PrP-Sho Complex: A Novel Therapeutic Intervention for Preventing Progression of Environmental Lead (Pb)-Induced Parkinsonism	AST: Academy of Science and Technology
2nd Place	Senior	Biomedical Engineering	Aetna Lin	Precision Analysis of Protein-protein Interactions Using AI-embedded Multimodal Biosensor Chips	THE JOHN COOPER SCHOOL - HS
2nd Place	Senior	Chemical Engineering & Materials Science	Anvesha Subramanian	Complex Coacervate: Novel Methodology to Crystallize Hydrophobic Drugs	Ridge Point High School
2nd Place	Senior	Chemistry	Prachi Natoo	Improving Hydrogen Production: Surfactants in Alkaline Electrolyzers	AST: Academy of Science and Technology
2nd Place	Senior	Earth and Environmental Sciences	Rhea Chidambaram	Project Purify: A Hybrid Electro-Photocatalytic System for Targeted Degradation of Microplastics	The Village School
2nd Place	Senior	Embedded Systems	Ethan Praisoody	Bridging Gesture Input with Communication Accessibility for Deaf/Nonverbal Individuals: A Probabilistic Markov Chain Framework for Airtyping Word Prediction	Friendswood High School
2nd Place	Senior	Embedded Systems	Ishan Pendyala	Bridging Gesture Input with Communication Accessibility for Deaf/Nonverbal Individuals: A Probabilistic Markov Chain Framework for Airtyping Word Prediction	Friendswood High School
2nd Place	Senior	Energy and Transportation	Rithvika Pradeesh	Design and Optimization of a Hybrid Piezoelectric–Electromagnetic Energy Harvesting System for Mechanical Energy Conversion	AST: Academy of Science and Technology
2nd Place	Senior	Engineering Mechanics	Elias Zhang	A Novel Unmanned Surface Recharge and Data Transfer Station for Autonomous Unmanned Vehicles	ST. JOHN'S SCHOOL
2nd Place	Senior	Engineering Mechanics	Saira Merchant	A Novel Unmanned Surface Recharge and Data Transfer Station for Autonomous Unmanned Vehicles	ST. JOHN'S SCHOOL
2nd Place	Senior	Engineering Mechanics	Ziyad Gilani	A Novel Unmanned Surface Recharge and Data Transfer Station for Autonomous Unmanned Vehicles	ST. JOHN'S SCHOOL
2nd Place	Senior	Environmental Engineering	Evan Quach	Agrabhi	Cinco Ranch - HS
2nd Place	Senior	Environmental Engineering	Naitik Patel	Agrabhi	Cinco Ranch - HS
2nd Place	Senior	Environmental Engineering	Nathan Sharma	Agrabhi	Cinco Ranch - HS
2nd Place	Senior	Mathematics	Alexander Onofrei	Mathematical analysis of a new real-domain Collatz map preserving parity dynamics with applications to momentum-based optimization	Seven Lakes - HS
2nd Place	Senior	Medicine and Health	Aarav Mehta	Computational Design of Allele-Specific microRNAs Targeting KRAS G12D in Pancreatic Ductal Adenocarcinoma	Dulles High School
2nd Place	Senior	Medicine and Health	Ahaan Thota	Computational Design of Allele-Specific microRNAs Targeting KRAS G12D in Pancreatic Ductal Adenocarcinoma	Dulles High School
2nd Place	Senior	Medicine and Health	Aryan Ganglani	Computational Design of Allele-Specific microRNAs Targeting KRAS G12D in Pancreatic Ductal Adenocarcinoma	Dulles High School
2nd Place	Senior	Physics and Astronomy	Silas Lovett	High-Fidelity Orbital Propagation Featuring Parallel Processing to Optimize Space Debris Mitigation Systems	Friendswood High School
2nd Place	Senior	Plant Sciences	Advaith Potti	Forecasting Latent Plant Disease Emergence: A Time-Series and Climate-Based Predictive Model for Pre-Symptomatic Risk in Crop Systems	Dulles High School
2nd Place	Senior	Plant Sciences	Ishan Pendyala	Forecasting Latent Plant Disease Emergence: A Time-Series and Climate-Based Predictive Model for Pre-Symptomatic Risk in Crop Systems	Dulles High School
2nd Place	Senior	Plant Sciences	Viraj Gorijala	Forecasting Latent Plant Disease Emergence: A Time-Series and Climate-Based Predictive Model for Pre-Symptomatic Risk in Crop Systems	Dulles High School

2nd Place	Senior	Robotics and Intelligent Machines	Eshaan Ahuja	Bioprinting In Vitro Human Muscular Tissue to Improve the Efficiency of the Medication Development Process	AST: Academy of Science and Technology
2nd Place	Senior	Software Design	Maaz Kattangere	Designing a Quantum Computing Algorithm to Simulate Interactions Between Cancer-Mutated Proteins and Anti-Tumor Drugs	AST: Academy of Science and Technology
3rd Place	Junior	Aerospace Engineering	Devier Wyatt	Going Down! Wing Tip Aspect Ratio Negatively Affects Glide Ratio	BCM Academy at James D Ryan - MS
3rd Place	Junior	Animal Science	Hayden Lesak	From the Hoof to the Heart	Seabrook Intermediate School
3rd Place	Junior	Behavioral and Social Sciences	Shruthi Ram Kumar	Decoding Social Deficits: Using Multimodal AI to Accelerate Autism Spectrum Disorder Diagnosis & Care.	Quail Valley Middle School
3rd Place	Junior	Biochemistry and Microbiology	Zoa Arsiwala	The Effects of Amylase on Glycemic Control	Knox Junior High
3rd Place	Junior	Biomedical Engineering	Jimit Patel	A Smooth Stride: Optimizing trans-tibial prosthesis ankle mobility functions	Knox Junior High
3rd Place	Junior	Chemical Engineering & Materials Science	Kuan Ju Chen	Synthesis of Nano Heat-Shielding Materials	Fort Settlement Middle School
3rd Place	Junior	Chemistry	Kaitlynn Viray	Glowin' With the Flow	Knox Junior High
3rd Place	Junior	Earth and Environmental Sciences	Sarina Mulepati	Corrosion of different household metals	Knox Junior High
3rd Place	Junior	Embedded Systems	Chetan Kodali	Smart Cane: AI-Powered Obstacle Detection and Ultrasonic Identification for the Visually Impaired	Knox Junior High
3rd Place	Junior	Energy and Transportation	Jayden Liu	Experimental And Economic Evaluation Of Algal Biofuels	McCullough Junior High
3rd Place	Junior	Engineering Mechanics	Derek Chan	Hand-Gesture Recognition Glove	Stafford STEM Magnet Academy
3rd Place	Junior	Engineering Mechanics	Keinan Sherrod	Hand-Gesture Recognition Glove	Stafford STEM Magnet Academy
3rd Place	Junior	Environmental Engineering	Dev Sanghavi	VERDE - Vegetation Erosion Real-Time Detection Engine	Lanier - MS
3rd Place	Junior	Mathematics	Roqaia Kamel	The Light Game	Harmony School of Innovation Katy
3rd Place	Junior	Medicine and Health	Himesh Mallula	The Price of Pain: The Difference in Bioaccessibility of Branded vs Generic Pharmaceutical Painkillers	PEARLAND JUNIOR HIGH SCHOOL, WEST - MS
3rd Place	Junior	Physics and Astronomy	Ethan Suh	Drone Attachments: Which Will Work Best in Space?	Knox Junior High
3rd Place	Junior	Physics and Astronomy	Yug Tandon	Drone Attachments: Which Will Work Best in Space?	Knox Junior High
3rd Place	Junior	Plant Sciences	Annabelle Murphy	Super Stems!	Seabrook Intermediate School
3rd Place	Junior	Robotics and Intelligent Machines	Anne Raphael	Scribey: Whiteboard Drawing Robot	T. H. Rogers MS
3rd Place	Junior	Robotics and Intelligent Machines	Jocelyn Li	Scribey: Whiteboard Drawing Robot	T. H. Rogers MS
3rd Place	Junior	Robotics and Intelligent Machines	Sonia Di	Scribey: Whiteboard Drawing Robot	T. H. Rogers MS
3rd Place	Junior	Software Design	Aditya Chanda	Using Machine Learning to Clear and Transcribe Unclear Speech Samples	Quail Valley Middle School
3rd Place	Junior	Software Design	Advik Singh	Using Machine Learning to Clear and Transcribe Unclear Speech Samples	Quail Valley Middle School
3rd Place	Junior	Software Design	Josh Pal	Using Machine Learning to Clear and Transcribe Unclear Speech Samples	Quail Valley Middle School
3rd Place	Senior	Aerospace Engineering	Aarush Bhavanam	Analysis of synergetic usage of biomimetic features in reducing propeller noise with minimal efficiency loss	Bridgeland - HS
3rd Place	Senior	Animal Science	Esther Levin	Comparison of Bioinformatic and Morphologic Methods for Taxonomic Identification of Dragonflies from Charlton, Massachusetts	Homeschool
3rd Place	Senior	Behavioral and Social Sciences	Hemish Duri	A Machine Learning Framework for Improved Phenotypic-Specific Autism Diagnosis	Bridgeland - HS
3rd Place	Senior	Behavioral and Social Sciences	Jayden Lin	A Machine Learning Framework for Improved Phenotypic-Specific Autism Diagnosis	Bridgeland - HS
3rd Place	Senior	Behavioral and Social Sciences	Jefferson Le	A Machine Learning Framework for Improved Phenotypic-Specific Autism Diagnosis	Bridgeland - HS
3rd Place	Senior	Biochemistry and Microbiology	Neel Kura	Designing a Signal-Decoy Antibiotic: Computational Design and Prioritization of Autoinducer Analogs that Competitively Bind Quorum-Sensing Receptors	AST: Academy of Science and Technology
3rd Place	Senior	Biomedical Engineering	Bella Pham	NanoCleaners: Miniature Magnetic Rotating Swimmers (MMRS) for Uniform Biolfilm Clearance in Urinary Catheters to Prevent Catheter-Associated Urinary Tract Infections	Cypress Ranch - HS
3rd Place	Senior	Biomedical Engineering	Dhruv Mantri	NanoCleaners: Miniature Magnetic Rotating Swimmers (MMRS) for Uniform Biolfilm Clearance in Urinary Catheters to Prevent Catheter-Associated Urinary Tract Infections	Cypress Ranch - HS
3rd Place	Senior	Biomedical Engineering	Nihika Sarada	NanoCleaners: Miniature Magnetic Rotating Swimmers (MMRS) for Uniform Biolfilm Clearance in Urinary Catheters to Prevent Catheter-Associated Urinary Tract Infections	Cypress Ranch - HS
3rd Place	Senior	Chemical Engineering & Materials Science	Clare McKenna	Enhancing Crop Longevity: A pH-Responsive MOF-Based Delivery System for Reversible alpha-Amylase Inhibition to Combat Post-Harvest Starch Degradation	TWHS: The Woodlands High School
3rd Place	Senior	Chemistry	John Lezama	Utilizing Grand Canonical Monte Carlo Simulations to Identify Optimal Zeolites in Post-combustion Carbon Capture	Tomball HS
3rd Place	Senior	Earth and Environmental Sciences	Bilal Sorathia	Optimizing Nanoplastic Filtration: Analyzing the Role of Valency-Dependent Electrostatic Compression in Coagulation for Membrane Systems	AST: Academy of Science and Technology
3rd Place	Senior	Earth and Environmental Sciences	Japesh Banker	Optimizing Nanoplastic Filtration: Analyzing the Role of Valency-Dependent Electrostatic Compression in Coagulation for Membrane Systems	AST: Academy of Science and Technology
3rd Place	Senior	Embedded Systems	Ryan Berger	A Minimally Invasive System For Detecting Heart Disease: A Novel Approach On Combatting The Greatest Killer In The World.	The Emery/Weiner School
3rd Place	Senior	Energy and Transportation	Victoria Velasquez Anderson	EchoPhase: Analyzing Stability and Scalability Performance of Sound Energy Harvesting Device Using Electroacoustic Transducers	AST: Academy of Science and Technology
3rd Place	Senior	Engineering Mechanics	Felix Everhard	ExoMano: A Mechanically-Actuated Hand Orthosis for the Restoration of Functional Grip in Arthritic Patients and Improved Quality of Life	AST: Academy of Science and Technology
3rd Place	Senior	Environmental Engineering	Krishiv Vyas	PINN-point Air Quality: Physics-Informed Neural Networks for Predictive Benzene Dispersion Mapping	Elkins High School
3rd Place	Senior	Environmental Engineering	Neev Pratap	PINN-point Air Quality: Physics-Informed Neural Networks for Predictive Benzene Dispersion Mapping	Elkins High School
3rd Place	Senior	Mathematics	Sana Kale	Modeling Cell Migration Using Geodesics Derived from Image-Based Tissue Metrics	Tomball HS
3rd Place	Senior	Medicine and Health	Brian Kim	Development of a Low-Resource, Mutation-Specific Lateral Flow Test for ctDNA Detection	ST. JOHN'S SCHOOL
3rd Place	Senior	Physics and Astronomy	Ram Magathala	Fast Fourier Isolation of Planetary Caustics: Overcoming Stellar Noise in Automated Exoplanet Discovery	Cypress Ranch - HS
3rd Place	Senior	Plant Sciences	Avery McCartney	Exploring the Impact of PEMF on Cotton Plants' Heat Stress Resistance During Early Development	ASHP: Academy for Science and Health Prof
3rd Place	Senior	Robotics and Intelligent Machines	Aditya Tandon	Converting Vision to Haptic Feedback for the Blind	Awty International School
3rd Place	Senior	Robotics and Intelligent Machines	Alex Drew	Converting Vision to Haptic Feedback for the Blind	Awty International School

3rd Place	Senior	Robotics and Intelligent Machines	Stephen Liu	Converting Vision to Haptic Feedback for the Blind	Awty International School
3rd Place	Senior	Software Design	Arjun Diwakar	A.C.H.O.O: Allergic Condition Health Observation & Oracle — An Interpretable Deep Learning Platform for Early-Onset Classification of Pollen Allergies in Children versus Viral Respiratory Infections	Cypress Ranch - HS
3rd Place	Senior	Software Design	Parth Zanwar	A.C.H.O.O: Allergic Condition Health Observation & Oracle — An Interpretable Deep Learning Platform for Early-Onset Classification of Pollen Allergies in Children versus Viral Respiratory Infections	Cypress Ranch - HS
3rd Place	Senior	Software Design	Sarah Castro	A.C.H.O.O: Allergic Condition Health Observation & Oracle — An Interpretable Deep Learning Platform for Early-Onset Classification of Pollen Allergies in Children versus Viral Respiratory Infections	Cypress Ranch - HS
Honorable Mention	Junior	Aerospace Engineering	Sasiri Dissanayake	Bio-Responsive Launchpads: Testing Nature's Engineering Under Pressure	Westbrook Intermediate School
Honorable Mention	Junior	Animal Science	Emma Roberts	Which ants can best survive the cold?	Knox Junior High
Honorable Mention	Junior	Behavioral and Social Sciences	Naya Abu-Shahin	When Noise Competes for Attention: The Cognitive Effects of Loud Background Noise on Memory Recall and Selective Attention	Houston Quran Academy - Spring - MS
Honorable Mention	Junior	Biochemistry and Microbiology	Annika Balaji	The Effects of Seasonings on the Growth of E. coli	Westbrook Intermediate School
Honorable Mention	Junior	Biomedical Engineering	Lourdes Morales	PA Vascular Probe Prototype - Engineering a Specialized Probe for Helping Diagnose Vascular Malformations Using the Photoacoustic Effect	Brookside Intermediate School
Honorable Mention	Junior	Chemical Engineering & Materials Science	Irem Bektas	Let The Dust Go!	Seabrook Intermediate School
Honorable Mention	Junior	Chemistry	Peter Zwart	Cooking Away the Danger: Deactivating Phytohemagglutinin in Kidney Beans	Westbrook Intermediate School
Honorable Mention	Junior	Earth and Environmental Sciences	Ximena Morales	The Soot behind the Spark	Brookside Intermediate School
Honorable Mention	Junior	Energy and Transportation	Marion Connelly	How Does the Metal Combination Used in a Thermoelectric Generator Effect the Amount of Electricity Produced	ST. JOHN'S SCHOOL
Honorable Mention	Junior	Environmental Engineering	Olivia Sauceda	When the moon bites back, The effect of Lunar Dust on Space Rated Cables	Brookside Intermediate School
Honorable Mention	Junior	Mathematics	London Hart	Cards Chairs and Chances: Investigating How Seat Location Affects Winning Chances in Texas Hold 'Em Poker	BCM Academy at James D Ryan - MS
Honorable Mention	Junior	Medicine and Health	Ananya Ghanathay	The Wound Watchers: Developing pH Sensitive Infection-Detecting and Infection-Healing Bandages	Knox Junior High
Honorable Mention	Junior	Physics and Astronomy	Noah Morris	Chladni Plates Wonders in Sound	Brookside Intermediate School
Honorable Mention	Junior	Robotics and Intelligent Machines	Adi Sanghavi	For Eyes Forever	Lanier - MS
Honorable Mention	Senior	Aerospace Engineering	Rafaela Rossetto de Souza Castilhos	Testing Possible Aerospace Architecture Structure Products	AST: Academy of Science and Technology
Honorable Mention	Senior	Behavioral and Social Sciences	Aditi Venkataraman	Words That Matter: Investigating whether general Large Language Models (LLMs) or mental-health specific AI platforms produce semantic similarity in language aligned with experience reports of ‘helpful’ or ‘harmful’ support in cases of suicidal ideation	AST: Academy of Science and Technology
Honorable Mention	Senior	Behavioral and Social Sciences	Irene Qian	Words That Matter: Investigating whether general Large Language Models (LLMs) or mental-health specific AI platforms produce semantic similarity in language aligned with experience reports of ‘helpful’ or ‘harmful’ support in cases of suicidal ideation	AST: Academy of Science and Technology
Honorable Mention	Senior	Biochemistry and Microbiology	Diya Rajkumar	In Silico Evaluation of Metal–Organic Frameworks for Receptor-Mediated Drug Delivery Across the Blood–Brain Barrier, targeting Glioblastoma	Tompkins - HS
Honorable Mention	Senior	Biomedical Engineering	Kaitlyn Nguyen	Multifactor Analysis of Nanoparticle Features Influencing Transport Across the Blood-Brain Barrier	Langham Creek - HS
Honorable Mention	Senior	Chemical Engineering & Materials Science	Maan Patel	Paint-on Power: Photonic Crystal Sensitization of a Low-Cost Carbon Quantum Dot Photovoltaic Composite for Sustainable Energy Conversion	AST: Academy of Science and Technology
Honorable Mention	Senior	Chemistry	Ronit Chheda	Advancing Applications of AI Predictive Models by Experimental Validation in Saltwater Battery Performance	Clements High School
Honorable Mention	Senior	Earth and Environmental Sciences	Aditya Puppala	Design of a Novel Biodegradable Starch-Chitosan Composite Film as an LDPE Plastic Alternative for UV-Triggered Environmental Degradation Using Advanced Molecular Dynamics Simulation and Experimental Testing	Dulles High School
Honorable Mention	Senior	Earth and Environmental Sciences	Saketh Tammisetti	Design of a Novel Biodegradable Starch-Chitosan Composite Film as an LDPE Plastic Alternative for UV-Triggered Environmental Degradation Using Advanced Molecular Dynamics Simulation and Experimental Testing	Dulles High School
Honorable Mention	Senior	Earth and Environmental Sciences	Veeraj Sirivolu	Design of a Novel Biodegradable Starch-Chitosan Composite Film as an LDPE Plastic Alternative for UV-Triggered Environmental Degradation Using Advanced Molecular Dynamics Simulation and Experimental Testing	Dulles High School
Honorable Mention	Senior	Embedded Systems	Carter Collison	LiDAR Assisted Navigation Device (LAND) for Visually Impaired	AST: Academy of Science and Technology
Honorable Mention	Senior	Energy and Transportation	Muhammad Farrukh	Bio-Inspired Hydropower	Clear Lake High School
Honorable Mention	Senior	Environmental Engineering	Leah Walters	Quantifying the Circular Economy: A Multi-D imensional Comparative Analysis of Seven Re cycled Waste Aggregates for Enhanced Concre te Durability, Embodied CO2 Reduction, and Maximized Non-Biodegradable Waste Diversion	AST: Academy of Science and Technology
Honorable Mention	Senior	Environmental Engineering	Natasha Pesnell	Quantifying the Circular Economy: A Multi-D imensional Comparative Analysis of Seven Re cycled Waste Aggregates for Enhanced Concre te Durability, Embodied CO2 Reduction, and Maximized Non-Biodegradable Waste Diversion	AST: Academy of Science and Technology
Honorable Mention	Senior	Mathematics	Samantha Kelling	Gender Bias in Young Adult Books	Clear Lake High School
Honorable Mention	Senior	Physics and Astronomy	Aniket Chakraborty	Spectra: Towards the Development of a Fully Photonic Von-Neumann Computer Processor Architecture	AST: Academy of Science and Technology
Honorable Mention	Senior	Plant Sciences	Charles Taylor	Electrolysis pH Modification of Aquarium Water for Hydroponics	Lamar HS
Honorable Mention	Senior	Robotics and Intelligent Machines	Pranav Pulluru	AI-Driven Voice Emotion and Prosody Analysis for Early Detection of Alzheimer’s Disease	Harmony School of Innovation Katy
Honorable Mention	Senior	Software Design	Ngoc Nguyen	Testing AI Safety Methods on AI Chatbots’ Usefulness and Safety	AST: Academy of Science and Technology