

USEF 2021- Senior Division

Category and Rank	Name	School	Project Title
Behavioral & Social Science- First	Yvonne Kim	West High	Mental Health during Covid-19: The Role of Knowledge and its Sources
Behavioral & Social Science- Second	Nathan Flores & Susan Arcos Flores	SLCSE	Latino Disparities in Psychological Resources and Treatment
Behavioral & Social Science- Third	Emma Baker	Juan Diego Catholic High School	Social Referencing in Ferrets
Behavioral & Social Science- Fourth	Mark Stevens	Juan Diego Catholic High School	To What Extent Has Diversity in College Admissions Personnel Affected the Diversity in the Student Population of that College
Biology and Microbiology- First	Aiden Pasinsky	Beehive Science and Tech Academy	How do specific mutated genes affect metabolic functioning in Prochlorococcus?
Biology and Microbiology- Second	Dora Meiwes	West High	Using BLASTp to Determine the Effectiveness of Influenza Vaccines
Biology and Microbiology- Third	Irvane Nelson	Juan Diego Catholic High School	Amino Acids on Insulin Secretion in Beta Cells
Biology and Microbiology- Fourth	Kaiser Welch	Blue Peak High School	Algae Scrubber
Civil & Environmental Engineering- First	Warren Ellsworth	Hillcrest High School	A Novel Continuous Electrostatic- Capacitive Desalination System Inspired by Biomimicry of Marine Teleosts's Chlorine Cells Designed for Economical Saltwater Deionization
Chemistry & Biochemistry- First	Aymeric Blaizot	Juan Diego Catholic High School	Inhibiting the Main Protease of SARS-CoV-2 with Peptides
Chemistry & Biochemistry- Second	Thomas Varghese	Juan Diego Catholic High School	Determining the Efficacy of Carbon 2'-Ribose Modifications
Chemistry & Biochemistry- Third	Tynli Moore & Jasmine Aguilar	Juan Diego Catholic High School	Arc and Zif in relation to age-related differences in habit formation
Computer Science & Applied Computational Methods - First	Anastasia Dunca	West High	Predicting Molecular Phenotypes with Single Cell RNA Sequencing: an Assessment of Unsupervised Machine Learning Models
Computer Science & Applied Computational Methods- Second	Aarav Singh	Beehive Science and Technology Academy	An Early and Cost-Effective Diagnosis of Melanoma Using Deep Learning Methods
Computer Science & Applied Computational Methods-Third	Ronak Agarwal	West High	Modelling Darwinism with Calculus
Computer Science & Applied Computational Methods- Fourth	Connor Cutshall	Juan Diego Catholic High School	Optimizing the Detection and Analysis of Ultrasonic Vocalizations
Electrical Engineering- First	Nathaniel Loveless	West High	Use of Collaborative Robotics in Mass Production of Freehand Components
Electrical Engineering- Second	Jameson Thackeray	Murray High School	Slip-Guard Alarm
Electrical Engineering-Third	Gabriel Min	Skyline High	Handwashing Sensor
Electrical Engineering- Fourth	Martin Mendoza Montes	Blue Peak High School	BlueSwitch
Energy: Chemical & Physical- First	Dyson Smith & Joshua Cropper	Blue Peak High School	Usage of Graphene Sheeting to Reduce Price and Weight of Soft Personal Ballistic Protection
Energy: Chemical & Physical- Second	Luke A. Ussing	Blue Peak High School	Use Bi2Te3 and Bi0.5Sb1.5Te3 to create flexible Thermoelectric Generators.
Earth & Environmental Science- First	Caleb Grow	Jordan High School	Locking Down: The COVID-19 Pandemic and Air Pollution in Salt Lake City

Earth & Environmental Science- Second	Wentao Zhang	Hillcrest High School	An Analysis of Air Quality Predictions Through Machine Learning
Earth & Environmental Science- Third	Gudon Abdi	Academy for Math, Engineering Science	Biocharging Plants
Mechanical & Materials Engineering- First	Marianne Liu	West High	A Novel Compositional-Structural Attention-Based Machine Learning Network to Predict Material Properties
Mechanical & Materials Engineering- Second	Collin Stanley	SLCSE	Knee Brace Exoskeleton
Medicine, Health Sciences, & Biomedical Engineering- First	Brendon Young	West High	Exploring a Ring-Based Non-Invasive Technique for Long-Term Human Cardiac and Cardiovascular Health Monitoring
Medicine, Health Sciences, & Biomedical Engineering- Second	Emilie Etchart	Juan Diego Catholic High School	Non-severe Bleeding Harm in Patients Undergoing Combined Anticoagulation and Antiplatelet Therapies for Treatment of Venous Thromboembolism (VTE)
Medicine, Health Sciences, & Biomedical Engineering- Third	Saisha Vankayalapati	Hillcrest High School	Targeting CDK9-dependent super-enhancers addiction in prostate cancer models with orally available small molecules
Medicine, Health Sciences, & Biomedical Engineering- Fourth	Evan Lee	Juan Diego Catholic High School	The Involvement of Heredity in Visual Short-Term Memory
Physics, Astronomy & Math- First	Malavika Singh	West High	Grasping Gestures: Analyzing the Aesthetics of Dance Through the Lens of Physics & Computer Science
Physics, Astronomy & Math- Second	Cameron Kenison	Blue Peak High School	French Horn Brass Mouthpiece with Optimal Performance on all Registers of the Horn
Physics, Astronomy & Math Third	Destiny Zank	Hillcrest High School	Breaking the Barrier ... With Rubber Bands?
Plant Sciences- First	Kalli Bo	Judge Memorial Catholic High School	Do Plants Get a Sun Tan?