



# Connecticut Science & Engineering Fair

## Quinnipiac University

March 7 - 19, 2022

*These judging results are unaudited by the fair's Database Committee. The CSEF reserves the right to correct the listings.*

### Final Judging Results

#### Award Legend

Plaque Winners = 1, 2, ...  
 Medalists = m  
 Winners = w

## Computer Science Awards

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Project Title]

### Middle School

5505 P8 Design and Testing of an Integrated 360 Degree Pi Camera System for Deep Well Rescue Mission

Award 1 Student(s) Sandhya Sudarsanam Grade 8 Town Danbury

- \* Lockheed Martin Physical Sciences Awards --- 4th Place - Physical Sciences 8th Grade Ind. - Plaque
- \* Petit Family Foundation Women in Science & Engineering Awards --- 2nd Place - Middle School- \$200 / Plaque
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 4th Place Middle School - Plaque, Medallion
- \* Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- \* Computer Science Awards --- 1st Place Middle School - \$300, Plaque
- \* Collins Aerospace Engineering Awards --- 2nd Place- Engineering MS- \$200 & Plaque
- \* Raytheon Corporation Awards --- \$500, Plaque
- \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- \* IEEE, Connecticut Section --- \$250 Honors Award -Junior
- \* Jon Chapis Memorial Award --- John Chapis Spirit of Innovation Award - MS \$100
- \* Zepke Awards --- \$100 - For the Best Use of Electronic Circuitry- Middle School
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

2006 L7 Catalace

Award 2 Student(s) Ethan Joseph Grade 7 Town West Haven

- \* PepsiCo Life Sciences Awards --- 1st Place- Life Sciences 7th grade - \$200 & Plaque
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 1st Place Middle School - \$300 and Plaque, Medallion
- \* Computer Science Awards --- 2nd Place Middle School - \$200, Plaque
- \* Connecticut Academy of Science and Engineering Middle School Urban School Challenge Award --- Urban School Challenge 1st MS - \$250 Cash Award, Invite to attend CASE's Annual Meeting
- \* Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 7th grader- Project Oceanology's Ocean Camp
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

2517 L8 The Latch

Award 3 Student(s) Neev Makin Grade 8 Town Hamden

- \* PepsiCo Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion
- \* Stanley Black & Decker Applied Technology Awards --- 2nd Place Middle School - \$200 and Plaque, Medallion
- \* Computer Science Awards --- 3rd Place Middle School- \$100, Plaque
- \* Collins Aerospace Engineering Awards --- 3rd Place- Engineering MS \$100 & Plaque
- \* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2



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**Computer Science Awards**

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5507 P8 2009 MacBook Restoration  
**Award** m **Student(s)** Andrei Balas **Grade** 8 **Town** Cheshire

- \* Stanley Black & Decker Applied Technology Awards --- 3rd Place Middle School - \$100 and Plaque, Medallion
- \* Computer Science Awards --- Middle School Finalist - Medallion
- \* Wisner Chairman's Award --- \$500 cash & Plaque MS

**High School**

3091 LS Development of Readily Accessible Machine Learning Diagnostics for Early Stage Mild TBI using Eye Tracking Methods  
**Award** 1 **Student(s)** Ashley Malkin **Grade** 9 **Town** Greenwich

- \* PepsiCo Life Sciences Awards --- 5th Place- Life Sciences Senior High - Plaque
- \* Computer Science Awards --- 1st Place High School - \$400, Plaque
- \* Alexion Biotechnology Awards --- 4th Place- Biotechnology Senior High - Plaque

3101 LS A clinicogenomic prediction model for the early diagnosis of lung cancer  
**Award** 2 **Student(s)** Isabella Wu **Grade** 10 **Town** Stony Brook

- \* PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* Computer Science Awards --- 2nd Place High School - \$300, Plaque
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion

6049 PS JARVITS: A Novel Deep Learning IoT Traffic Control System for Real-time Detection and Signal Optimization  
**Award** 3 **Student(s)** Ryan Kim **Grade** 11 **Town** New Haven

- \* Computer Science Awards --- 3rd Place High School- \$200, Plaque
- \* Collins Aerospace Engineering Awards --- 3rd Place- Engineering Senior High- \$200 & Plaque
- \* Raytheon Corporation Awards --- \$500, Plaque
- \* Quinnipiac University Scholarships --- \$30,000, 4 year scholarship (\$7,500 per year) to Quinnipiac University for HS Student

6071 PS Cloud Identification in Mars Daily Global Maps with Deep Learning  
**Award** m **Student(s)** Sebastian Mengwall **Grade** 12 **Town** Darien

- \* Lockheed Martin Physical Sciences Awards --- 5th Place - Physical Sciences Senior High Individual - Plaque
- \* Mathematics Awards --- 2nd Place High School - \$300 and Plaque
- \* Computer Science Awards --- Senior High Finalist - Medallion
- \* Raytheon Corporation Awards --- \$500, Plaque
- \* MapleSoft Awards for Applied Mathematics and Modeling --- For excellence in Mathematics and Modeling - Maple Software and T-shirt



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6038 PS Using Artificial Intelligence to Analyze the Changes in Opioid Prescriptions and Usages Brought by Efforts to Reduce Overdoses

**Award** m **Student(s)** Karthika Siva **Grade** 11 **Town** Stamford

\* Computer Science Awards --- Senior High Finalist - Medallion

6050 PS On the machine learning-assisted generation of Alcubierre-like spacetime metrics with consideration for use in interstellar travel

**Award** m **Student(s)** Yuxuan Song **Grade** 11 **Town** Old Greenwich

\* Computer Science Awards --- Senior High Finalist - Medallion

6054 PS Real-Time Motion Tracking System and Data Analytics for Live Insects Using Three-Wheeled Servosphere Robot

**Award** m **Student(s)** Nicholas Lee **Grade** 11 **Town** Trumbull

- \* Lockheed Martin Physical Sciences Awards --- 2nd Place - Physical Sciences Senior High Individual - \$300 & Plaque
- \* Computer Science Awards --- Senior High Finalist - Medallion
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Yale Science & Engineering Association, Inc. --- 1 Certificate, Medallion and 1- \$25 gift card given by CSEF
- \* IEEE, Connecticut Section --- \$100 Honorable Mention

6025 PS Developing a Graphical User Interface to Organize Ecommerce Product Attributes

**Award** m **Student(s)** Haoyue Yang **Grade** 11 **Town** Woodbridge

\* Computer Science Awards --- Senior High Finalist - Medallion

6016 PS Finding Gravitationally Lensed Quasar Systems by using a Polar Shapelet Decomposition Approach

**Award** m **Student(s)** Ishan Prasad **Grade** 12 **Town** Westport

- \* Computer Science Awards --- Senior High Finalist - Medallion
- \* Astronomical Society of Greater Hartford - The Charles Hammond Award for Excellence in Astronomy --- Senior Project-\$150, subscription to Sky and Telescope, ASGH membership and meeting invitation
- \* University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Frontiers in Science - Co-Op \$100 Gift Certificate
- \* Arthur & Ruth Mensing Award --- Mensing Award Excellence in the Physical Sciences - \$500

6021 PS NeRF-UAV: Inexpensive 3-D Colored Video Reconstruction Using RGB Camera Equipped Drone Swarms and Neural Radiance Fields

**Award** m **Student(s)** Eric Sun **Grade** 11 **Town** Flushing

- \* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- \* Computer Science Awards --- Senior High Finalist - Medallion



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6090 PS The Optimization of a Ground Collision Avoidance System and Application to Inhibit Controlled Flight Into Terrain Accidents For Single Engine Aircraft

Award m Student(s) Mason Beaudette Grade 12 Town Orange

- \* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- \* Computer Science Awards --- Senior High Finalist - Medallion
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
- \* American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate

6066 PS Using an Artificial Neural Network Modelled After the Human Neocortex to Gain a Better Understanding of How the Neocortex Creates New Ideas

Award m Student(s) Annika Yun Grade 10 Town Orange

- \* Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- \* Computer Science Awards --- Senior High Finalist - Medallion
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion