



# Connecticut Science & Engineering Fair

## Quinnipiac University

March 4 - 16, 2024

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

## Computational Biology and Bioinformatics Awards

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

### Middle School

**Greenwich** Eastern Middle School Andrew Bramante

2506 L8 Natural remedies research for seasonal allergies by Machine Learning of Crowd Information

Award 1 Student(s) Arthur Lai Grade 8 Town Greenwich

\* Pfizer Computational Biology and Bioinformatics Awards --- 1st Place Middle School - \$300, Trophy

**Wilton** Middlebrook School Janica Bagosy

5510 P8 Burnt: A web-based application to help adolescents self-assess and seek help for stress and poor mental health

Award 2 Student(s) Jackson Norful Grade 8 Town Wilton

- \* Connecticut Science Fair Association Physical Science Awards --- 4th Place- Physical Sciences 8th Grade Ind. - trophy
- \* Pfizer Computational Biology and Bioinformatics Awards --- 2nd Place Middle School - \$200, Trophy
- \* Infosys Foundation Computer Science Awards --- 3rd Place Middle School- \$100, Trophy
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

**Bridgeport** Geraldine Johnson School Kelly Mulligan

1009 LT Can you detect Artificial Intelligent generated Text from Human Generated Text?

Award 3 Student(s) Angelica Philogene Grade 8 Town bridgeport

Kee'maja Lilley Grade 8 Town Bridgeport

- \* Pfizer Computational Biology and Bioinformatics Awards --- 3rd Place Middle School - \$100, Trophy
- \* The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Middle School Finalist - Medallion
- \* Infosys Foundation Computer Science Awards --- Middle School Finalist - Medallion

### High School

**Woodbridge** Amity Regional High School Catherine Piscitelli

6098 PS Modeling Interactions Between the Neocortex and the Basal Ganglia During Temporal Sequential Learning Using a Hierarchical Temporal Memory Artificial Neural Network

Award 1 Student(s) Annika Yun Grade 12 Town Orange

- \* Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- \* Pfizer Computational Biology and Bioinformatics Awards --- 1st Place High School - \$500, Plaque
- \* Stanley Black & Decker Applied Technology Awards --- 2nd Place High School - \$300 and Plaque Medallion
- \* IEEE, Connecticut Section --- \$100 Honorable Mention



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## Computational Biology and Bioinformatics Awards

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**Stamford** Academy of Information Technology and Joshua Bogard

3035 LS A Novel Machine Learning Model for Estrous Cycle Classification in Mice

**Award** 2 **Student(s)** Saachi Goyal **Grade** 11 **Town** Stamford

- \* Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- \* Pfizer Computational Biology and Bioinformatics Awards --- 2nd Place High School - \$300, Plaque
- \* The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- 1st Place High School - \$500 and Plaque, Medallion
- \* Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
- \* H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- \$500 to 1st HS Urban School Challenge Science Department for Equipment/Supplies

**Wallingford** Choate Rosemary Hall Yingxin Gao

3121 LS Identifying the Patterns in the Progression of Alzheimer's Disease

**Award** 3 **Student(s)** Ann Song **Grade** 11 **Town** Farmington

- \* Pfizer Computational Biology and Bioinformatics Awards --- 3rd Place High School - \$200, Plaque
- \* Alexion Biotechnology Awards --- 5th Place Biotechnology Senior High - plaque

**Brookfield** Brookfield High School Jonathan Neuhausel

6048 PS Single Cell Multi-omics Analysis of Glioblastoma: Identification of Differently Expressed Genes and Diagnosis of Isocitrate Dehydrogenase Mutants

**Award** m **Student(s)** Shriya Jonnalagadda **Grade** 12 **Town** Brookfield

- \* Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion

**Greenwich** Greenwich High School Andrew Bramante

3055 LS Development and In vitro Verification of a Polymersome for Blood-Brain Barrier Transport Through a Novel Machine Learning Model

**Award** m **Student(s)** Ashley Malkin **Grade** 11 **Town** Greenwich

- \* Life Science Awards with support from Boehringer Ingelheim --- 1st Place- Life Sciences Senior High- \$500 & Plaque
- \* Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- \* H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- Life Sciences Senior 1st HS- \$1,000, Solid Silver Medal of Excellence, Invite to CASE Annual Mtg
- \* Alexion Biotechnology Awards --- 4th Place Biotechnology Senior High - plaque

**Hamden** Hamden Hall Country Day School Gina D'Angelo

6025 PS Deep learning based drug response prediction algorithm about synergistic and antagonistic responses of cell lines and drug combos.

**Award** m **Student(s)** Jiahui Chen **Grade** 11 **Town** New Haven

- \* Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- \* Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- \* Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- \* Lunch with a Patent Attorney --- Lunch with a Patent Attorney



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**Hamden** Hamden Hall Country Day School Robert Link  
 3011 LS Using an AI algorithm to minimize the number of punctures attempted during blood draw or IV insertion.  
**Award** m **Student(s)** Neev Makin **Grade** 10 **Town** Hamden

\* Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion

**South Windsor** South Windsor High School Danel Eitel  
 3510 LST A novel approach to preventing the PrPsc induced neurotoxicity which characterizes Creutzfeldt-Jakob disease through the inhibition of Glypican-1  
**Award** m **Student(s)** Smriti Rajan **Grade** 11 **Town** South Windsor  
 Sanjay Rajan **Grade** 9 **Town** South Windsor

\* Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion

**Stamford** King School Victoria Schulman  
 6097 PS DETICKT IT: A Machine Learning-Based Application for Real-Time Tick Identification and Spatiotemporal Disease Risk Assessment  
**Award** m **Student(s)** Antonia Kolb **Grade** 12 **Town** New Canaan

- \* Connecticut Science Fair Association Physical Science Awards --- 3rd Place- Physical Sciences Senior High Individual - \$200 & Plaque
- \* Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- \* Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
- \* Christopher T. Borowiec Excellence in Innovation Awards --- \$100 Cash for Excellence in Innovation with emphasis in Artificial Intelligence

**Wilton** Wilton High School Matthew Hoyt  
 3059 LS A Novel AI-Driven Approach for Tracking and Managing Invasive Plant Species  
**Award** m **Student(s)** Shriya Natarajan **Grade** 10 **Town** Wilton

- \* Life Science Awards with support from Boehringer Ingelheim --- 3rd Place- Life Sciences Senior High- \$200 & Plaque
- \* Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- \* Environmental Sciences Awards with Connecticut Association of Conservation and Inland Wetlands Commissions --- HS Finalist - CSF Medallion
- \* Banning Family Life Science Award --- For excellence in invasive species research, \$100 cash