Morgan State University-Science-Mathematics-Engineering Fair 2025

High School Winners

OVERALL WINNERS

Name: Dylan Paoletti
Project Title: Harnessing Saccharomyces cerevisiae to Assess a Novel Genetic Circuit Targeting p53 & Mdm2 for Cancer Therapy
School: Patterson Mill High School
Grade: 11

Name: Nikash Kumar
Project Title: Neuroprosthetics Restoring Ability Enhancing Accessibility
School: Atholton High School
Grade: 10

Morgan State University-Science-Mathematics-Engineering Fair 2025

High School Winners

Physical Science

1st Place
Name: Vijay Madabushi
Project Title: SELF-SUSTAINING LOW-COST AND WIDELY AVAILABLE ENERGY HARVESTING DEVICES
School: Mount Hebron High School
Grade: 11

Biological Science

Honorable Mention
Name: Mia Sproge
Project Title: Designing a Light Inducible Protein Crystal
School: Baltimore Polytechnic Institute
Grade: 12

Honorable Mention
Name: Tyler Wu
Project Title: Unveiling the Impact of Cost on Esthetics of Dental Treatments
School: Marriotts Ridge High School
Grade: 12

Honorable Mention
Name: Caleb Choi
Project Title: Youth Vaping Associated with Co-Occurring Risk Factors: Results from National Representative Data
School: Marriotts Ridge High School
Grade: 11

Honorable Mention
Name: Kelly Ji
Project Title: CYFOR: Decoding Circadian Clock Regulation Using a Novel Machine Learning Framework
School: Centennial High School
Grade: 11

Honorable Mention
Name: Dhruv Veda
Project Title: BTBI-Insight: A Novel Late Fusion ML for Rapid Diagnosis of Blast Induced Traumatic Brain Injury in Veterans
School: Centennial High School
Grade: 11

Morgan State University-Science-Mathematics-Engineering Fair 2025

High School Winners

Biological Science

3rd Place
Name: Zaina Shah
Project Title: Which Type of Anti-Drug Video Is Most Effective in Engaging Teens?
School: Baltimore Polytechnic Institute
Grade: 9

2nd Place
Name: Sanchir Molom-Ochir
Project Title: Investigating the Impact of rpsL Gene Editing on E. coli Survival in Acidic and Temperature-Stress Conditions
School: Centennial High School
Grade: 10

1st Place
Name: Dylan Paoletti
Project Title: Harnessing Saccharomyces Cerevisiae to Assess a Novel Genetic Circuit Targeting p53 & Mdm2 for Cancer Therapy
School: Patterson Mill High School
Grade: 11

Morgan State University-Science-Mathematics-Engineering Fair 2025

High School Winners

Earth and Environmental Science

2nd Place
Name: Mishty Patel
Project Title: Green Solutions for Cleaner City Air
School: River Hill High School
Grade:11

1st Place
Name: Naren Nair
Project Title: Unequal impact: Analysis of climate-driven stresses and economic disparities
School: Glenelg High School
Grade: 9

Morgan State University-Science-Mathematics-Engineering Fair 2025

High School Winners

Mathematics and Computer Science

Honorable Mention
Name: Suhas Anumolu
Project Title: AI-Driven Cyber Threat Detection and Prevention: Enhancing Security Through Machine Learning and Deep Analytics
School: Centennial High School
Grade:11

Honorable Mention
Name: Albert Yelken
Project Title: DEVELOPMENT OF INTELLIGENT TUTORING SYSTEMS IN AUTISM SPECTRUM DISORDER DIAGNOSIS AND TREATMENT Learner Profile Creation with Needs Assessment and Cognitive Task Analysis
School: Fusion Global Academy
Grade:11

Honorable Mention
Name: Shuya Li
Project Title: Risk-Aware AI: Training a Materialistic Chess Player
School: Marriotts Ridge High School
Grade: 11

Honorable Mention
Name: Vishnu Kannan
Project Title: Lightweight Multimodal Machine Learning Models Achieve Highly Accurate Diagnosis of Cataract Severity in Patients from Smartphone Images
School: River Hill High School
Grade: 11

Morgan State University-Science-Mathematics-Engineering Fair 2025

High School Winners

Mathematics and Computer Science

3rd Place
Name: Sai Siddhish Chandra Sekaran
Project Title: Centennial High School
School: OptiFly A Novel Machine Learning Solution in Aviation to Enhance Aircraft Safety and Efficiency
Grade:11

2nd Place
Name: Maneet Mehta
Project Title: Generating Fearful Images: Investigating Potential Emotional Biases in Image-Generation Models
School: Reservoir High School
Grade: 12

1st Place
Name: Anis Ahmed
Project Title: Disparities in Baltimore: Looking at Crime in Baltimore Through a Statistical Lens
School: Baltimore Polytechnic institute
Grade: 12

Morgan State University Science-Mathematics-Engineering Fair 2025

High School Winners

Engineering

Honorable Mention

Name: Martin Meister
Project Title: Centennial High School
School: Using FMCW Radar and Range-Gated Clutter Suppression for Trombone Slide Position Detection
Grade: 12

3rd Place

Name: Vasyl Dail
Project Title: Creating more thrust-efficient airfoils to protect the environment
School: Baltimore Polytechnic Institute
Grade: 9

2nd Place

Name: Dev Gadhia
Project Title: Activin A-Interleukin-10-GDF-15 Triple Fusion Protein with Infusion of Small Molecules as Novel Combinatorial Therapeutic for Remyelination in Multiple Sclerosis (AIG Triple Therapy) and Leveraging Missense Mutations for Lower Pathogenicity
School: Marriotts Ridge High School
Grade: 10

1st Place

Name: Nikash Kumar
Project Title: Neuroprosthetics Restoring Ability Enhancing Accessibility
School: Atholton High School
Grade: 10

Team

1st Place

Names: Aarush Kejriwal, Grade 11
Dhrithi Obla, Grade 12
Project Title: The Lost Sense: Harnessing Haptic Feedback Mechanisms to Revolutionize Digital Communication and Enable Joint Tactile Signals for Individuals with Cognitive and Sensory Processing Disorders
School: Mount Hebron High School