

## Gold Medal

Abigail Chan	Decoding Brain Waves using Electroencephalography (EEG)
Aadrika Bhakt	HNU: Bridging the Gap to Essential Hygiene for All
John Fu	Beyond Buttons: Face-Controlled Input for Enhanced Accessibility
Sammy Hawari	Sign Vocalizer: Elevating Non-verbal Communication
Ananth Arunkumar	RipeNet
Arjun Raychowdhuri	ReconNEXT
Aris Chan	A Novel Approach to Using AI to Detect Melanoma
Khalil Hawari	Unravelling the Web with Adaptive AI
Casper Dong	Novel Cooling and Cleaning of Solar Panels Utilizing Hydrogels
Aditya Mahes	Predicting Palmitoylation Sites To Advance Neurological Research
Ayesha Abubakr	AnaLung: A Novel Approach to Lung Cancer Diagnosis
ShaoEn Tang	Neuroimmune mechanisms that contribute to cancer development
Emily Huang	Shining a light on POTS
Darsh Dharani Kumar	Google Read and Right? The Impact of Learning App Features
Ayra Zulfiqar	Window into the soul/ Art psychology
Anna Gomis Flores	How Listening to Music Affects Eating Speed
Anum Dasoo	Frustration Demonstration Station: The Effects of Frustration
Makinley King	Flexible Fun: A Study of How Choice Affects Motivation
Amelia Pletsch	Life on Mars: Germinating Edible Plants in Martian Regolith
Jessica Jin	Debunking the Myth of Multitasking
Dingcheng Ruan	How Music Affects Working Memory
Shreyash Umamaheswaran, Loyd Gebreselassie	Greater Agriculture? Yes, please.
Roocha Shukla	Green-Armour: A Novel Plant Biostimulant
Tristan Butcher	ExoSeer: A Comprehensive Algorithm for Exoplanet Analysis
Vera Golubitsky	Reversible Stratospheric Albedo Modification
Boyu (Felix) Pang	EVALUATING THE EFFECTIVENESS OF DAMPERS IN VIBRATION MITIGATION
Felicity Banbury	Soil Speaking: The Effect of Land Use on Soil Carbon Sequestrati
Cadenza Farina	Go With The Flow: Optimizing Water Wheels For Energy Generation
Eric Bao	Fates of Rogue Planets by Microlensing and N-Body Simulation
Anna Chen	Graphene Quantum Dots for Dendrite Free Zinc-Ion Batteries
Seif Atwa	Finding a Circumbinary Planet using Eclipse Timing Variation

## Silver Medal

Vladimir Skadorov

Anaum Sohail

Joshua Wu

Michaela Suits, Alina Amaya

Saral Patel, Tahreem Noor

Diya Basdeo

Tasbiha Wasim

Anastasia Miroshnikova, Mia George

Daniel Zhang

Mia Reyes

Jujhar Seehra

Sylvia Robinson

Hazel Allen

Sarah Ehrlich, Madison Sellers

Myranoush Khan, Tejal Patil

Nayaa Singh

Aanya Mendapara

Eslam Al Muhalhal, Louisa Baumann

Hand Gesture Controlled Robotic Arm

H2Grow: An Arduino Smart Irrigation System

MedChip

Optical Illusions and Mind Games

Eat Snow - Yes/No

Rapidly Racing Roots: Hydroponic and Traditional Gardening

Minds In The Machine

Fermentation

Natural Defense: Antibacterial properties of Natural Substances

How to Create a Memorable Logo

Game Time's Up: A Study of the Effects of Video Games

Testing for Correlations Between EQ and Pareidolia

Genetic Modification and its Effects on Soil Health

The Fertilizer Frontier

Cognitive Response Experiment

Natural Armor: Natural compounds and their effect on skin bacteria

Valuable Vitamins: Cooking Methods & Vitamin Retention

Developing Accessible, Plant-Based Sun Protection

## Bronze Medal

Carson Toonstra

Kalli-Ann Sevaptsidis

Rowan Kellman

Cate Winterhalt, Benjamin Phillips

Ahmed Aamir

Mufarrid Saif Ansari

Moiz Hussain

Kaavya Ragu, Ben Walsh

Ali Qureshi

Chloe Kizito

Akash K Sathishkumar

Aishee Roychowdhury, Ziyi Ye

Joshua Alaga

Arkin Cheppudira

John Jayakumar

James Wolf

Overcoming Verbal Communication Barriers Using Machine Learning

Employing AI to Detect Breast Cancer

Ground Effect Vehicle Design and Canadian Applications

Doctor GPT: How well can AI diagnose illnesses based on symptoms

Cultivating life beyond earth

Harnessing AI in Predicting and Mitigating Disease Outbreaks

Revolutionizing Respiratory Wellness

Types of grounding on Foxhole Radio

STROOP EFFECT: The World's Favourite Brain Game

Temperature in heat shock for E. coli and Antibiotic Resistance

Hoopin' To The NEXT LEVEL

Food For Thought: Meal Ticking Time Bomb

Sonic vs Cancer

Retaining Relevance: A Study of Content Length and Memory

Which is Better, Plant-base or Meat Burgers

Difficulty Dilemmas: Perceptions, Performance, and Predictions

## **Bronze Medal continued**

Emily Pavlin  
Scarlett Jones  
Maliya Pigozzo, Nyla Harnum  
Brayden Streutker  
Farida Hassan  
Orion Wilson, Adam Kugler  
Eva Luccisano-Esposito  
Jade Tran, Ethan Tran  
Oliver Young, Won Jong Song  
Ben Pridham  
Zainab Wasim  
Sophie Rus  
Esli Drummond  
Hannah Jiao, Abigail Lin  
Andreas Kyriacou, Oliver Leonard  
Omar Hamadeh  
Katherine Albright  
Daniel Covalcic

The Effects of Stretching on on Anaerobic Power  
Stress Less - Achieve More? The Effect of Mindful Activities  
Don't Get Puzzled!  
Bacteria in my House?  
React Faster: A Study on Improving Human reaction time  
How WIFI Radiation Affects Plant Growth  
Plastic Revolution?: A Study of Biodegradable Plastics  
The Power of Presence: Mindfulness Meditation and Productivity  
Combating Digital Eye Strain Excluding Blue Light Blocking Glass  
Focusing on Change  
Eye-Spy-Lies Unravelling the Accuracy in Eyewitness Accounts  
The Promise of Nutrigenomics  
Fluid Fortitude: Non-Newtonian Fluids and Puncture Resistance  
Stop, it popped! - Exploring Acidity in Direct Spherification  
Melt the Ice  
An automated system for measuring gas release rates  
Pop for Boba  
Making aspirin more efficiently

## **Pewter Medal**

Muryum Aamir  
Jeevithan Muhunthan  
Tara Ganipur  
Zander Emmerton  
Ibraheem Aamir  
Yaning Zhu  
Max Winter  
Arjun Mahes  
Vaidik Shingalla  
Harman Bawa, Maunil Patel  
Kate Korczak  
Anne Begley, Joy Cha-Kang  
Rowena Bennesch  
Inayah Ally  
Lilia Biswas  
Musa Shaikh

Can AI Diagnose Breast Cancer  
A Novel Approach To Computer Composition  
Aqua Pura Kanata: Water Quality In 6 Nations  
Reinforced Racing: A Study of Grid-Based Reinforced Learning  
Getting medicine at the Right place at the Right time  
The Invention of a Universal Language  
How To Launch Your Dog (A Ball)  
Using ML to predict the progressions of heart complications  
Biometric Attendance System  
AgroGlance - An Economical Detector for Fertilizer Efficiency  
Bacillus Biodegradation: Reducing Microplastics in the Human Bod  
How to Not Die While Drinking Water  
Animal Conditioning and the Litter Problem  
Cosmic Cultivation: Exploring Plant Growth Beyond Earth's Bounds  
Society's Outlook on Vaping  
Mnemonic versus Rote memorization; Long Term Memory Impact

### **Pewter Medal continued**

Chloie Clarke, Brianna Macpherson  
Evan Kotlyachkov  
Han Kwak  
Graydon Jarych  
Tessa Main, Cara Williams  
Johann Kumarakulasingam  
Liam Riche  
Tehya Vyas, Vaneeza Qureshi  
Ronin Thompson  
Calvin Chang-Kue  
Layana Abdelwahab  
Julia Scheerer, Mackenzie McIntyre  
Sharjeel Parekh, Leon Somerton-Veilleux  
Liam Martin, Johnathan Caleta  
Amir Sayad  
Eddy Ye, Aarya Bandi  
Remy Wang

### **Founders' Award of Excellence**

Roocha Shukla

### **Award of Merit**

Roocha Shukla  
Casper Dong  
Anna Chen  
Ayesha Abubakr  
Abigail Chan  
Ananth Arunkumar  
Amelia Pletsch  
Sammy Hawari  
Tristan Butcher

The KT Project  
A Switchy Situation: Task Difficulty and Task Switching  
Flipping Under Pressure: A Study of Spectators and Pressure  
Eye Conditions and Screen Time  
Heart Rate  
How Sound Affects Taste  
Bacteria...Doesn't Quite Cut It? Cutting Boards and Bacteria  
Gut Microbiome Health vs Mental Health  
Drag in Sphere Aerodynamics  
Magnetic Force  
Smart Green House  
Does It Glow?  
World Transport Systems & How To Make KW A Transit Haven  
Impact of Fin Choice on Model Rockets  
Hooke's Law and Elastic Bands  
Seeing Through Stealth: Implications of Artificial Intelligence  
Biomimicking slime moulds to find the path of least resistance

Green-Armour: A Novel Plant Biostimulant

Green-Armour: A Novel Plant Biostimulant  
Novel Cooling and Cleaning of Solar Panels Utilizing Hydrogels  
Graphene Quantum Dots for Dendrite Free Zinc-Ion Batteries  
AnaLung: A Novel Approach to Lung Cancer Diagnosis  
Decoding Brain Waves using Electroencephalography (EEG)  
RipeNet  
Life on Mars: Germinating Edible Plants in Martian Regolith  
Sign Vocalizer: Elevating Non-verbal Communication  
ExoSeer: A Comprehensive Algorithm for Exoplanet Analysis

## **Stepping Stone**

Cadenza Farina

Aris Chan

Vladimir Skadorov

Anastasia Miroshnikova, Mia George

Felicity Banbury

Go With The Flow: Optimizing Water Wheels For Energy Generation

A Novel Approach to Using AI to Detect Melanoma

Hand Gesture Controlled Robotic Arm

Fermentation

Soil Speaking: The Effect of Land Use on Soil Carbon Sequestrati

## **Best Written Report**

Kevin Huang

Khalil Hawari

Sammy Hawari

John Fu

Anaum Sohail

Cadenza Farina

Johann Kumarakulasingam

Stereo Camera School Zone Safety Driving Assistant

Unravelling the Web with Adaptive AI

Sign Vocalizer: Elevating Non-verbal Communication

Beyond Buttons: Face-Controlled Input for Enhanced Accessibility

H2Grow: An Arduino Smart Irrigation System

Go With The Flow: Optimizing Water Wheels For Energy Generation

How Sound Affects Taste

## **Stephen J. Little Award**

Saral Patel, Tahreem Noor

Eat Snow - Yes/No

## **Best in Division**

Roocha Shukla

Ananth Arunkumar

Anna Chen

Green-Armour: A Novel Plant Biostimulant

RipeNet

Graphene Quantum Dots for Dendrite Free Zinc-Ion Batteries