

**Commack High School**

***Research Class of 2019***

**Nicholas Bitonti**

*Tulane University*

Development of Unique Strains of Fruit Flies Using Transposable Elements

**Kathy Cao**

*Johns Hopkins University*

The Development of a Machine Learning Model to Predict Tropical Cyclone Genesis from Mesoscale Convective Systems

**Gabriel Chan**

*Columbia University*

An Exploration of Dynamics of Population Neural Activity in Neural Cortex During Spatial Attention

**Kristen Chao**

*Johns Hopkins University*

An Improved Formula or Renal Parenchymal Area and Total Kidney Volume for Increased Accuracy in Renal Dimensions

**Gabrielle D’Agostino**

*Barnard College*

Non-Newtonian Vehicle Side Impact Damage Reduction System

**Cathleen Deutsch**

*New York University*

Hong Kong Land Valuation Analysis Over the Past 14 Years

**Aria Eghbali**

*Binghamton University*

Reinforcement Learning for Optimization of Traffic Light Control Using Multiple Light Nodes as Inputs

**Brian Flynn**

*Binghamton University*

The Effect of Different Antacids on Reducing Stomach pH

**Maheen Khan**

*Stony Brook University*

Reinforcement Learning for Optimization of Traffic Light Control Using Multiple Light Nodes as Inputs

**Joshua Lee**

*Harvard College*

A Deep Learning System Approach to Probe the Genetic Links Between Schizophrenia and 22q11.2 Deletion Syndrome

**Delina Levine**

*University of Maryland*

Proof of Principle: Machine Learning to Analyze Phase Transitions

**Emma Matz**

*Stony Brook University*

Analyzing the growth of *TatA2, HSLJ*, and *AlgW* mutants of *Acinetobacter baylyi* under different temperatures

**Jiwon Paul Moon**

*University of Illinois at Urbana-Champaign*

Growth of Iron Aluminide Crystals

**Pragati Muthukumar**

*Massachusetts Institute of Technology*

Identifying Differential and Conserved Alternative Splicing (AS) Events in *Zea mays*

**Sean Pak**

*Johns Hopkins University*

Artificial Neural Network Based Target Localization Method for Multi-Static Passive Radar Systems

**Isac Park**

*Stony Brook University*

Modeling the concentration of EDTA Y4- ions at decimal pH levels

**Victoria Pensiero**

*Columbia University*

Powering Dual Chamber Pacemakers Using Biofuel Components

**Yasemin Sahin**

*Columbia University*

Steering Magnet Research and Development for the Electron-Ion Collider

**Deniz Sinar**

*Cornell University*

DNA Damage Repair: The Correlation Between Dicer and Replication Protein A1

**Kyle Spinelli**

*United States Military Academy West Point*

Development of an Efficient Method of LFSR for the Encryption of DNA Data Stores

**Carly Tamer**

*Northeastern University*

Analyzing the growth of *TatA2, HSLJ*, and *AlgW* mutants of *Acinetobacter baylyi* under different temperatures

**DeVaughna Tulloch**

*High Point University*

The Effect of Subtitle Texts on the Recollection of a Film