



Commack High School

Research Class of 2021

Jayson Bromberg

Union College

Comparing the Impact of El Niño Southern Oscillation on the Abundance of Breeding Pairs of *Pygoscelis adeliae* in West Antarctica and East Antarctica

Michael Chacon

Monmouth University

The Implications of Selachimorpha Proximity to Underwater Structures within the New York Bight Region

Annika Chang

Northeastern University

The Correlation of Type 2 Diabetes Mellitus Treatment Status on Phosphorylated-tau, A Biomarker for Alzheimer's Disease Diagnosis

Kevin Chen

Northeastern University

A Vehicle Motion Prediction Solution

Alyssa Collado

St. John's University

How Manufacturing Outputs and Sulfur Dioxide Relate to Pneumonia Deaths in China, and Its Improvement

Joseph Cramer

University of Hawaii

Recording Different Age Group Stigmas Toward Psychosis Related Illnesses

Gavin Cressy

Johns Hopkins University

The Correlation Between Atmospheric Particulate Matter and Reported Mental Distress Frequency in Alzheimer's Disease Patients of Varying Ethnic Demographics

Katerina Efthymiou

Georgia Institute of Technology

Policing and Crime Deterrence- The Relationship Between Number of Police Officers per Capita and Violent Crime

Elena Gnilitskaya

Stony Brook University

The Effect of Lead Levels on Crime Rates in the US

Brianna Han

Columbia University

Markov Chain Monte Carlo Methods for Estimating Rainfall Rate from Dual-Polarization Weather Radar

Emily Hartman

Syracuse University

The Effect of the Rising Sea Level on Precipitation Levels

Annabelle Hohne

Binghamton University

Policing and Crime Deterrence- The Relationship Between Number of Police Officers per Capita and Violent Crime

Eric Huang

University of Maryland

Comparing the Impact of El Niño Southern Oscillation on the Abundance of Breeding Pairs of *Pygoscelis adeliae* in West Antarctica and East Antarctica

Erika Kraft

Northeastern University

Measuring the Effectiveness of Varying Types of Meditation using Leukocyte Telomere Length

Matthew Lee

Northwestern University

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Amy Liu

Johns Hopkins University

Analyzing Phosphorus-doped Carbon Nanotubes to Maximize Hydrogen Storage Capacity

Jane Maloney

SUNY New Paltz

How Manufacturing Outputs and Sulfur Dioxide Relate to Pneumonia Deaths in China, and Its Improvement

Evan Ni

Stony Brook University

An Investigation of the Relationship Between Immunoglobulin G Concentrations and BMI in Rheumatoid Arthritis Patients

Jayden Prestiano

University of Miami

The Effect of the Rising Sea Level on Precipitation Levels

Marlee Reiter

University of Virginia

The Correlation of Type 2 Diabetes Mellitus Treatment Status on Phosphorylated-tau, A Biomarker for Alzheimer's Disease Diagnosis

Kiera Spahn

University of Miami

Increased Hepatic Expression of COL I and COL III Genes in a Model of Nonalcoholic Steatohepatitis with Fibrosis; A Call for Targeted Therapy

Rohan Surana

Northeastern University

The Potential Impact of Police Activity on Children's Future Income in the United States

Kevin Tuzinowski

Stony Brook University

Benchmark study of Ab initio Gene Prediction Programs using Density Based Spatial Clustering of Applications with Noise (DBSCAN)

Jordan Walsh

Northeastern University

Computer Modeling of Fetal Heart Rate and Uterine Activity during Pregnancy

Tryphena Zareif

University of Pennsylvania

The Effect of Lead Levels on Crime Rates in the US

Chapin Zerner

University of Virginia

Using Machine Learning to Predict Features Related to the Immune Response in COVID-19