

Honors Engineering Research

2023-2024

- Internships:
 - Acon Pharma
 - Commvault
 - Girl in Space Club
 - Matrix New World Engineering
 - Monmouth County Engineering
 - Redwood Realty AI
 - Guided Study of Cryptography (Rutgers University)
 - Rutgers WINLAB
 - WIT Contests (Parwan Electronic Corporation)
- Projects:
 - Automated Fishing Rod Project
 - Drone Photogrammetry Project
 - Laser Security System Project
 - Magnetohydrodynamic Drive Project
 - Sign Language Translator Project
 - Sketchy Siri Project

2022-2023

- Building A Pulse Oximeter
- Developing The First Female Space Suit
- The Effect of Aerofoil Shape on the Flight of Airplanes
- The Effect of UV Radiation on Atopic Dermatitis and Phymatous Rosacea
- Enhancing Database Performance through Advanced SQL Query Optimization Techniques ([Commvault](#) Internship)
- The Four Color Problem
- Gravitational Lensing: A Study on the Behavior of Light near Supermassive Objects
- Hand Mounted Laser
- Litter Cleaner
- Prototyping an Augmented Reality HUD for a Spacesuit Helmet ([Girl in Space Club](#) Internship)
- Recyclops (automating the recycle sorting process)
- SQL Servers and Disaster Recovery
- Volleywall
- Wall Elevation Bringers (W.E.B.s)
- [WIT](#) Internship (data collection, sorting and storage)

2021-2022

- Biochemistry-Oriented ([Sabinsa Corp.](#) Internship)
- Creating A Safe Alternative to Receipts
- Creating “Digital Footprint” Awareness Exhibition ([AT&T](#) Internship)
- Designing an Origami Solar Panel
- Determining The Biomechanics For An Optimal Basketball Jump Shot
- Developing Notification Software for a Cart-based Hydroponic Farm
- Developing a Prototype General Credential Granting Workflow ([Commvault](#) Internship)
- Exercise Form Correcting Software
- The File Integrity Checker ([Commvault](#) Internship)
- Forensic Footprint Analysis Robot
- Generative Music
- Reducing Medical Error Via Automated Brain MRI Scan Analysis
- Reducing the Urban Heat Island Effect in Modern Cities
- Repurposing Disposable Face Masks
- Statistical Theory In Game Making Application: Invest 4 & Capital Ship
- Understanding the Effects of Social Media and Multitasking on the Ability to Focus