BRYAN CULLANO

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EDUCATION

New Jersey Institute of Technology *Newark, NJ*
M.S., Mechanical Engineering | GPA: 4.0 Sep 2020 – May 2022
B.S., summa cum laude, Mechanical Engineering | GPA: 3.96 Sep 2017 – May 2021

- Albert Dorman Honors College, Pi Tau Sigma Honors Society, NJIT Solar Car Development Team

PROJECTS

Sit and Stand Assist Wheelchair Spring 2021

- Modeled and designed frame, tilting mechanism, and the standardized parts for a wheelchair to assist a patient in and out of a seated position
- Performed stress analysis on wheelchair frame to ensure extreme loading conditions met a minimum factor of safety and experience minimal deformation

Firefighting Drone Mechanism Fall 2020

- Designed and developed a launcher mechanism with 3 colleagues that can easily mount to a standard F450 drone frame to launch a projectile with an extinguishing agent
- Conducted mass property analysis in SolidWorks to optimize weight and location of center of gravity

EXPERIENCE

Merck May 2021 – Aug 2021
Sterile & Specialty Products Intern *Kenilworth, NJ*

- Modeled and 3D printed impeller designs to replicate industrial-scale mixing conditions in lab setting and investigate geometric effects
- Supported experimental data with CFD in Ansys Fluent to examine flow patterns and volume fraction
- Developed a Python script to extract data from DynoChem toolbox and produce a user friendly summary sheet for scale up/down processes

Stealth Indoor Vertical Farming Venture Jul 2019 – Mar 2020
Engineering Intern / Assistant Project Manager *Greater NYC Area*

- Implemented and tested plumbing systems for critical research and development facility, ensured on-time delivery of an error-free, fully functional plumbing system
- Trained, supervised, and mentored 5 engineering interns, ensuring that all subordinates achieved required technical skills in plumbing and mechanical systems
- Redesigned and executed mechanical system configuration to free up 30% of space for other systems

NJIT Electrical & Computer Engineering Department Jun 2019 – Jul 2019
Research Assistant *Newark, NJ*

- Collaborated in a cross-functional team of mechanical and computer engineers to simulate 360° view driving using RC cars, cameras, and 3D printed parts designed in Creo to drive through a scale model of Newark
- Created MATLAB program to show multiple landscape view windows of a radial image to be used in LabVIEW graphical user interface

SKILLS

CAD: Creo (Advanced), SolidWorks (Advanced), Ansys (Intermediate), AutoCAD (Intermediate)

Programming: Python (Intermediate), HTML & CSS (Intermediate), C/C++ (Basic), MATLAB (Basic)