Joseph Sciotto

8 High Gate Dr, East Setauket, NY 11733
561-631-0116 jds2333@columbia.edu LinkedIN

Education

Columbia University **Sep. 2023 – May 2027**
Bachelor of Science in Mechanical Engineering; Minor in Applied Mathematics; GPA - 3.47/4.00 *New York, NY*

Relevant Coursework

Foundations of Data Science, Mechanics of Materials, Mechanics and Thermodynamics of Propulsion, Materials & Processes in Manufacturing, Analysis & Optimization, Intro to Mechanics of Fluids, Thermodynamics

Experience

Hayduk Engineering LLC **June 2024 – August 2024**
Wastewater Engineer Intern *Ronkonkoma, NY*

- Modeled a full wastewater treatment facility in Revit, coordinating current and planned construction diagrams with adequate expansion functionality for even further planning to support design review
- Produced process flow diagrams for neighborhood-wide pre-treatment facilities; reduced review iterations by senior engineers by 50%
- Drafted elevator service electrical diagrams in AutoCAD, aligning with NEC constraints and site conditions
- Collaborated with civil team in Civil 3D to adjust site layout and perform runoff calculations for different grades of material

Stony Brook University Earth and Space Sciences Laboratory **January 2022 – November 2022**
Volunteer Research Assistant *Stony Brook, NY*

- Learned standard lab procedures and safety precautions
- Synthesized a variety of X-Ray amorphous mineral samples that are found in Martian Volcanic soils
- Conducted X-Ray diffraction and Raman Spectroscopy on synthesized mineral samples
- Prepared datasets and presented at the International Science and Engineering Fair

Projects

Bugatti Type 51 Model | *SolidWorks, 3D Printing, 3 Axis Milling* **March 2025**

- Developed a 3D assembly in SolidWorks of the 1931 racecar
- Applied gemoetric modeling for silicone model replication
- Created a negative of the body of the model to mold in silicone, taking into consideration sprue placement and pour hole geometry.
- Used 3 Axis CNC milling to create an aluminum negative of the wheels of the model to later injection mold plastic

Plus-Minus Playground Toy | *SolidWorks, FEA* **April 2025**

- Developed a new toy to teach young children how to add and subtract without using counting measures.
- Developed a 3D model of a "see-saw" type toy that would be rotated by placing sliders along a number line, with the result showing on an arced ruler to the side.
- Used SolidWorks FEA to simulate a child stepping on the toy, or it being dropped from a significant height, achieving a FoS of 1.7

Low-Cost Poiseuille Viscometer | *3D Printing, Arduino, Python* **December 2025**

- Designed a low-cost medical grade viscometer using syringes and needles dropping liquid onto a load cell.
- Coded an Arduino to measure the mass vs. time data, and output to a spreadsheet to be further analyzed
- Used Pandas and Numpy to produce plots of the fitted data according to the solution to the first order ODE, yielding highly accurate results

Technical Skills

Design: SolidWorks, Fusion360, Revit, Civil3D, drawing creation, GD&T
Programming: Python, MATLAB, HTML/CSS, JavaScript
Manufacturing: 3 Axis CNC Milling, 3D Printing, Laser Cutting, Soldering, CNC/Manual Lathe
Simulation/Analysis: SolidWorks FEA, ANSYS CFD, Simulink

Leadership / Extracurricular

ROTC **September 2023 – Present**
Cadet *Fordham University*

- Led a Company of Cadets in training and exercise operations throughout a semester
- Managed smaller groups of Cadets in a squad, tracking attendance, accountability, and gear distribution.
- Led Simulated Tactical Exercises as a platoon leader to achieve the assigned mission