

Lisette Alexandra Silva

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EDUCATION

Cornell University • College of Engineering

Bachelor of Science in Mechanical Engineering, Minor in Business

Ithaca, NY

Dec. 2025

EXPERIENCE

Public Service Enterprise Group (PSE&G), Gas Distribution and Appliance Services Intern

June 2025 - present

- Led and designed PSE&G's initial Gas City proposal, a gas-leak detection training field layout in AutoCAD and Fusion360, consisting of a 1.6-acre facility with 13 fully functional training homes with live gas, gas mockup regulators, and squeeze off training pit
- Evaluated and integrated advanced automated leak-detection systems and analyzed 5 VR simulator programs and Wireless Gasless Leak Detectors to enhance training for over 200 Gas Distribution First Responders annually
- Authored and presented a comprehensive technical report with design specifications and implementation roadmaps to Gas Technical Training stakeholders, driving approval for leak field upgrades within 2 years
- Assisted the Instructional Design team in modernizing curriculum materials into the new standardized template, enhance instructional quality, visuals, and alignment with subject matter expertise

B-A Engineering, P.C., Assistant Traffic Engineer & CAD Specialist

June 2023 – June 2025

- Utilized AutoCAD to design and develop 7+ construction plans for road infrastructure projects, including prominent locations such as the Brooklyn Bridge, Newark Airport, and JFK Airport, ensuring alignment with client specifications and project goals
- Collaborated with civil and traffic engineers to conduct on-site visits to take measurements and assess layouts
- Worked alongside the CEO to gather project requirements, discuss design objectives, and ensure client satisfaction

The Cornell Store, Student Manager

Aug. 2022 - present

- Co-led a team of 20+ students, overseeing store-wide project delegation and ensuring seamless execution across departments
- Initiated and led the successful migration of team communication to Microsoft Teams, enhancing collaboration and efficiency
- Trained and mentored student employees and part-time hires in the register department, focusing on operational excellence and customer service

PROJECTS

Piston Water Pump, Team Member

Jan. 2023 - May 2023

- Designed a radial piston pump with three piston cylinders which use positive displacement and pressure seal to produce energy output.
- Utilized the software Fusion360 to construct 3D renderings, functional decomposition charts, and morphological charts to analyze all pump parts and test functionality

Spatial Visualization Techniques, Team Member

July 2021 - Aug. 2021

- Led a group of 4 members to research and presented graphical and orthographic projections, solid of revolution, cut planes, symmetry/reflection seen in engineering mechanics
- Utilized Fusion360 to design and develop a CAD model of a wind turbine gear box that connects the low-speed shaft to the high-speed shaft

LEADERSHIP

Rise Dance Group, Treasurer

May 2024 - present

Cornell Sabor Latino Ensemble, Dance Officer

Sept. 2022 - present

SKILLS, AWARDS, & ORGANIZATIONS

Skills & Tools: Autodesk AutoCAD, Autodesk Fusion360, SolidWorks, Machining, MATLAB, Python, Ansys, Microsoft Office Suite

Awards and Honors: Cornell Engineering Leadership Certification, Cornell University *Ryan Scholar*, Cornell University NACME Scholar

Organizations: Society of Hispanic Professional Engineers, Society of Women Engineers, CU Empower Mentorship – *Active Member*