DAYA SILVERSTEIN

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ABOUT ME

Mechanical Engineering student at Queen's University with interests in sustainable design, HVAC, and transportation systems. Building expertise in CAD, FEA, and design optimization through academic projects and team experience.

ENGINEERING PROJECTS

Water Treatment System — CAD, Prototyping, Additive Manufacturing

- Designed automated alum-based water treatment system; produced potable water from untreated lake water.

Fusion 360 Assembly Generator — Python, MATLAB, CAD

- Developed CAD add-in generating assemblies from natural-language prompts.
- Implemented tolerance-based parametric algorithms, planetary gear customization, and automated BOM workflows.

Autonomous Warehouse Navigation — Python, A*, Automation

- Designed obstacle-avoidance and path-planning logic using A* algorithm with clearance optimization.

Queen's Formula SAE Design Team — Powertrain Sub-Team Member (In Progress)

- Contributing to design, testing, and manufacturing of electric powertrain system.

Queen's Hyperloop Design Team — Braking Sub-Team Member (In Progress)

- Supporting optimization of braking technology on the Queen's Hyperloop pod.

TECHNICAL SKILLS

Design & Analysis: SolidWorks, Fusion 360, Revit, GD&T, FEA (Basic), Material Selection
Manufacturing: CNC Machining, 3D Printing, Rapid Prototyping, BOM Creation
Languages: English (Native), French (Intermediate)

EDUCATION

BASc – Mechanical Engineering (2028) | Queen's University, Kingston, ON
Relevant Coursework: Statics/Dynamics, Thermodynamics, Materials, CAD, Manufacturing, Fluid Mechanics