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Ithaca, NY

Joseph B. Nadol IV

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EDUCATION

Mechanical Engineering, BS

Aug 2022 - May 2026 (expected)

Cornell University - Ithaca, NY - **GPA: 3.5**, Dean's List (Fall '22, '23, '24)

Coursework: Mechanics of Materials, Mechatronics, Fluid Mechanics, System Dynamics, Heat Transfer, Engineering Dynamics, Statics and Mechanics of Solids, Thermodynamics, Mechanical Synthesis, Differential Equations, Multivariable Calculus, Linear Algebra, Physics III: Waves, Chemistry I

WORK EXPERIENCE

Engineering Intern, Starship Critical Lift

May 2025 - Aug 2025

SpaceX

Starbase, TX

- Performed load calculations and created in-house lift & transport plans for ultra-heavy objects.
- Worked with technicians to create work orders, test plans, and assembly/operation instructions.
- Designed and analyzed custom bridge to load Starship and Super Heavy onto a barge for transport.

Mechanical Engineering Intern

May 2024 - Aug 2024

Blackbridge Motors

South Norwalk, CT

- Designed custom parts for classic car resto-mod business focusing on Land Rover Defenders.
- Built BOMs and created full CAD assemblies for car projects to help scale production.
- Created process documents and work orders for technicians, adding rigor to car assembly process.

CORNELL BAJA SAE TEAM

Team Lead

Jun 2025 - Present

- Working with two other team leads to lead the design and manufacturing of the TG22 Baja car.
- Cornell Student Lead for the Emerson Machine Shop, acting as liaison from student body to faculty.

Geartrain Subteam

Jun 2024 - Jun 2025

- Personally designed and fabricated every part of the TG21 Baja car's 4WD system (carbon driveshaft).
- Reduced subsystem weight by 15% by optimizing U-joint yoke geometry through iterative design with Ansys.
- Greatly increased serviceability by designing a splined yoke assembly to replace directly bonded parts.
- Logged over 200 hr/semester in the machine shop, operating 4th-axis CNCs to create critical parts.

Suspension Subteam

Jun 2023 - Jun 2024

- Designed the rear suspension arms on the TGXX Baja car (dual A-arm setup).
- Designed and fabricated welding fixtures for the suspension arms, ensuring well-controlled tolerances.
- Placed 1st Place in Suspension at Baja SAE California and 2nd Place Iron Team for 2024.

SKILLS & INTERESTS

Mechanical Design

CAD (NX, Solidworks), FEA (AnSys), rapid prototyping, DFM, weldment design

Manufacturing

Cornell Emerson Shop "Blue Apron", 200+ hours Haas 4-axis CNC, 300+ hours ProtoTrak CNC lathes, CAM, basic metrology

Programming

Python, L^AT_EX, Excel, MATLAB

Campus Involvement

Pi Kappa Alpha Fraternity, Ski Team, Amateur DJ