Nicholas K. Schneider

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EDUCATION

Cornell University, College of Engineering | GPA: 3.6 **Ithaca, New York**
Bachelor of Science, Mechanical & Aerospace Engineering Expected May 2027

- **Relevant Coursework:** Fluid Mechanics, Aeronautics, System Dynamics, Statics & Mechanics of Solids, Thermodynamics, Differential Equations, Multivariable Calculus, Linear Algebra, Mechanical Design, Physics II

PROFESSIONAL EXPERIENCE

Cornell Rocketry **Ithaca, New York**
Propulsion Engineer, Propulsion Subteam *Sept 2025 – Present*

- Designs ethanol run tank and feed system for liquid rocket propulsion system producing 1,400 lbf thrust capacity
- Performs Ansys FEA and CFD to evaluate stresses and flow to ensure safety under high thrust operating loads
- Machines aluminum, steel, and fiberglass components to precision fabricate airframe and combustion structure

Cornell University **Ithaca, New York**
Undergraduate Researcher, Bewley Applied Turbulence Lab *Jan 2025 – Present*

- Analyses turbulence patterns over 3D printed eagle-inspired airfoils to model natural aerodynamic flight behavior
- Tests bio-inspired airfoils in a wind tunnel to measure lift, drag, and varying-Reynolds number flight effects
- Quantifies aerodynamic forces across airfoils under changing flow and attack angle conditions for performance

Corning Incorporated **Corning, New York**
Optical Fiber Engineering Intern, Optical Communications Department *June 2025 – Aug 2025*

- Created a universal quantifiable metric scale to compare abrasive strength across all optical fiber product types
- Designed new prototype equipment to measure abrasive strength across various fiber coatings and coating sizes
- Performed fractographic analysis of optical fibers to determine flaw sizes, failure loads, and flaw origin locations

NASA – National Aeronautics and Space Administration **Tempe, Arizona**
Propulsion Engineer, NASA L'SPACE Proposal Writing and Evaluation Experience *May 2025 – Aug 2025*

- Attended virtual NASA workforce academy dedicated to writing and evaluating professional technical proposals
- Engineered variable geometry injector system to enhance liquid bipropellant rocket engine performance by 400%
- Chaired review panel for NASA solicitation responses from proposal teams competing for $10,000 in funding

Corning Incorporated **Corning, New York**
Mechanical Engineering Intern, Department of Pharmaceutical Technologies *July 2022 – Aug 2022*

- Operated a universal testing machine to perform strength tests and to determine the failure loads for six products
- Designed test to screen syringes below 100 N failure load threshold using a strength-based mechanical fixture
- Analyzed over 2,000 defective vials and syringes using fractography to evaluate crack sizes and break patterns

LEADERSHIP EXPERIENCE

Cornell Concrete Canoe **Ithaca, New York**
Subteam Co-Lead | Materials Engineer, Mold & Analysis Subteam *Sept 2024 – Sept 2025*

- Co-lead a 24-member team to design and engineer the concrete mold through 3D CAD modeling and FEA testing
- Directed the hydrodynamic analysis of the concrete hull geometry using CFD software to optimize drag profiles

Cornell University **Ithaca, New York**
Undergraduate TA, Physics Department *Aug 2024 – Dec 2024*

- Instructed 21 students in basic circuit design, analog instrumentation, and data logging for physics lab projects
- Ensured safe handling and application of lab equipment for electronic measurement and uncertainty analysis

Keuka Yacht Club **Hammondsport, New York**
Sailing Instructor, Summer Sailing Experience *June 2023 – Aug 2023*

- Instructed a group of 12-20 students sailing skills based on the US Sailing red book small boat curriculum guides
- Managed regatta logistics weekly, providing tactical instruction and on-the-water competition opportunities

SKILLS, LANGUAGES & INTERESTS

Skills: Siemens NX, SolidWorks, Fusion 360, Ansys, CFD, FEA, MATLAB, Python, Excel, Arduinos, Machining Mechanical Testing, 3D Additive Manufacturing, Soldering, Technical Writing, Proposal Evaluations, Microsoft Office
Languages: English (Native), Spanish (Proficient), Portuguese (Conversational)
Student Organizations: Men's Ski Race Team, Triathlon Team, Cornell Footvolley Club, SHPE, ALPFA, ASME
Interests: Soccer, Sailing, Skiing, Triathlons, Weightlifting, Cars, Planes, Drones, Rockets, Traveling, Technology