Ryan Xie

(469) 866-9987 | rsx3@cornell.edu | www.ryan-xie.com | linkedin.com/in/xieryan

Education

Cornell University | Sibley School of Mechanical and Aerospace Engineering   **Ithaca, NY**
B.S. in Mechanical Engineering   *Expected May 2027*
> **Awards:** Texas Instruments Jerry R. Junkins Memorial Scholarship
> **Relevant Courses:** System Dynamics, Mechanics of Materials, Fluid Mechanics, Mechatronics, Thermodynamics, Mechanical Design, Dynamics, Statics, Python

Technical Skills

CAD & Design: SolidWorks, AutoCAD, Fusion 360   Simulation: MATLAB, Python, Ansys (FEA)
Manufacturing: Machining, Rapid Prototyping, Arduino   Languages: Mandarin, Spanish

Professional Experience

GlobalFoundries   **Malta, NY**
Mechanical/Manufacturing Engineering Intern   *May 2025 – August 2025*
- Improved manufacturing process efficiency and reduced tool downtime by 11% through data-driven root cause analysis (RCA), statistical process control (SPC), and workflow optimization.
- Designed and implemented a real-time process monitoring dashboard for wafer cleaning systems, reducing chemical waste by 20,000 L and lowering operating costs by $130,000 annually.
- Conducted failure analysis and defect mapping, implementing corrective actions that enhanced yield and process stability across high-precision, high-throughput manufacturing and automation systems.
- Performed mechanical and electromechanical integration testing and failure diagnostics on complex equipment to ensure reliability and minimize disruptions.
- Received Global Recognition Program Award for outstanding execution and measurable project impact.

Red Bear Ventures   **Ithaca, NY**
Summer Associate   *May 2024 – August 2024*
- Conducted technical due diligence on engineering startups, evaluating product design, scalability, and market fit to guide VC investment decisions.
- Revamped firm's digital product (website/UI) and developed materials used to secure a $30M fundraising round.

Extracurricular Experience

Cornell Baja SAE Racing Project Team   **Ithaca, NY**
Team Member & Fundraising Lead   *October 2023 – May 2025*
- Designed and CAD-modeled car components using SolidWorks, ensuring durability, performance, and crashworthiness under dynamic conditions.
- Developed and led execution of fundraising campaign, raising $13,000 under 24 hours.
- Doubled funding from $15K to $30K/month, setting an all-time record, through targeted communication strategies and partnerships with campus organizations, administration, and individual donors to drive momentum
- Contributed to team's 2nd Place Overall in the 2024 Baja SAE Season out of 100+ international collegiate teams.

Patent US-20210269053-A1   **Dallas, TX**
Inventor   *September 2021 – Present*
- Patented a novel vehicle collision safety system that enhances driver awareness using a combination of sensors and cameras mounted on an extended rod for improved detection range and accuracy. The system monitors the position and speed of nearby vehicles to identify potential collision or exit conditions in real time.

Campus Involvement

Cornell Varsity Alpine Ski Team, American Society of Mechanical Engineers (ASME), Car Club