SRINJOY GHOSH

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EDUCATION

Purdue University, College of Engineering — **West Lafayette, IN**
Bachelor of Science, Mechanical Engineering — **May 2028**
Deans List — **3.58/4.00**

EXPERIENCE

University of Tennessee - Oak Ridge Innovation Institute — **Knoxville, TN**
Research Intern (Advisor: Dr. Pingen Chen) — **May 2026 – July 2026**

- Developed MATLAB Simulink and Simscape models for a Reconfigurable Battery Systems (RBS) to optimize second-life EV battery utilization in off-grid mobile charging stations.
- Engineered a dynamic cell-switching algorithm in simulation, achieving a 15% increase in usable battery lifespan when using a Reconfigurable Battery System.

Purdue IEEE Racing — **West Lafayette, IN**
Mechanical Technical Lead — **August 2026 – Present**

- Lead a subteam of 10+ members in mechanical component design, chassis integration, and smooth workflow between sub-teams.
- Design custom mounting brackets and precision mechanical structures using Fusion 360 for autonomous and manned electric racing karts.
- Manufacture components using Bambu Lab 3D printers, manual mills, and lathes.
- Establish project proposal for Vertically Integrated Projects (VIP).

Geometric and Annotation Modeling Course — **West Lafayette, IN**
Student — **August 2025 - December 2025**

- Designed a personalized wheel rim and Air Engine Powered Nerf-Gun in open-ended lab projects, applying CAD modeling to emphasize functionality and aesthetic goals.
- Created technical drawings with GD&T to define dimensions and critical geometric features.

LEADERSHIP AND INVOLVEMENT

Purdue Club Tennis — **West Lafayette, IN**
President — **January 2026 – Present**

- Administer over 200 members, including undergraduates, graduates and faculty.
- Organize club practices, tryouts, budget, and events in coordination with executive board members.
- Manage club communications and serve as the primary liaison with campus recreation staff and other schools.

LICENSURE AND CERTIFICATIONS

Purdue Milestones Certification - Finite Element Analysis

- Setup static stress simulation with target shape optimization parameters
- Setup a dynamic event simulation, analyzing if a helmet can successfully block a bullet from penetrating.

RELEVANT SKILLS OR RELEVANT INTERESTS

- **Design:** Siemens NX, GD & T, Fusion 360, Finite Element Analysis
- **Manufacturing:** CNC Mill, CNC Lathe, Manual Mill, and Lathe
- **Programming Languages:** Java, C, MATLAB, Simulink, Simscape, Python
- **Computer:** Microsoft Office Suite
- **Languages:** Fluent in English, Bengali and Hindi
- **Related Coursework:** Fluids, Controls, Dynamics and Circuits