

# Sarah Fischer

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## EDUCATION

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### University of Pennsylvania

Bachelor of Science in Mechanical Engineering

Relevant Coursework: Thermal Fluids Engineering, Statics and Strength of Materials, Mechanics of Solids and Fluids, and Lab

Philadelphia, PA

expected May 2027

SAT 1510, ACT 34

## PROJECTS

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- **Ball Launcher:** Created an adjustable mini cannon using MDF, a 3D printed chute, and rubber bands.
- **Comsol Fluid Analysis:** Analyzed velocity fields, and coefficients of drag and lift of a sphere and airfoil.

## EXPERIENCE

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### Grayhill Inc- Mechanical Engineering Intern

Summer 2025, LaGrange, IL

- Designed, printed, and soldered wires for portable test racks meeting specifications for Grayhill's T1 and 61k encoder series.
- Modeled existing shop fixtures and designed additional necessary fixtures for the production floor.
- Created and implemented systems for pre-testing T1 series parts after a spike in rejected units.

### Five Seasons Family Sports Club - Swim Team Coach

2019-2024, Burr Ridge, IL

- Transformed a reluctant swimmer, unable to doggy paddle, into a nationally ranked top-10 competitor.
- Collaborated with coaching staff to tailor lesson plans, addressing the varied progress of swimmers.
- Adapted coaching techniques for a parent, helping her overcome lifelong challenges with water.

### Head Lifeguard

- Designed and led safety drills to uphold training standards throughout the swimming season.
- Supervised lifeguard teams during operations to ensure adherence to safety protocols.
- Provided immediate care for a wind-related injury and implemented long-term solutions to enhance umbrella stand safety.

## LEADERSHIP AND ACTIVITIES

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### Penn Cross Country and Track & Field Athlete

- NCAA Division I athlete balancing academics with the 20-30 weekly hrs of training, travel, & meets.
- Medalist in the 3k Steeple Chase at the Ivy League Heptagonal meet.
- Fostered a community culture within the team between event groups by planning team brunches, leading study sessions, and hosting movie nights.

### Penn Athletics Wharton Leadership Academy - Junior facilitator

- Selected by coaching and Wharton staff to represent track in the McNulty Leadership Program.
- Developed leadership skills, including personal values, character development, and effective communication sophomore year in order to lead and teach freshman the same skills junior year.

### Women's Athletic Association

- Represented track in organization charged with creating a supportive and empowering environment for female athletes across Penn's athletic programs.

### Penn Fashion Collective - Head of Design

- Self-taught designer since high school, creating unique homecoming dresses and everyday clothing.
- Mentored members in sewing techniques and guided them through the design process, from ideation to wearable pieces, fostering creativity and hands-on skills.

**Skills:** Penn-certified for 3D printing and laser cutting, fluent in Spanish (Seal of Biliteracy), experienced at using SolidWorks, Creo, Comsol, Java, and Matlab