

Arya Bhangale

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EDUCATION

Purdue University, College of Engineering <i>Bachelor of Science in Engineering, Intended Major: Mechanical Engineering</i>	West Lafayette, IN 2025-2029
West Windsor Plainsboro High School South <i>GPA: 3.79 UW, 4.23 W National Honor Society / Red Cross Club / South Asian American Student Association</i>	Princeton Junction, NJ 2021-2025

EXPERIENCE

Purdue Vertically Integrated Project (VIP) Humanoid Robot Team <i>Mechanical Team Member</i>	Aug 2025 – Present
<ul style="list-style-type: none">Contribute to mechanical subsystem design for a full-scale humanoid robot, including CAD modeling (ex. SolidWorks) and structural analysis.	
Youth Suicide Prevention Associates – NJ Department of Health <i>Youth Planning Committee Member</i>	May 2024 – Aug 2025
<ul style="list-style-type: none">Designed and implemented curriculum promoting mental health awareness.Coordinated students and teaching assistants to foster open discussions.Encouraged peer support and community engagement around wellness.	
FIRST Robotics Competition, Team 1923 (The MidKnight Inventors) <i>Mechanical Captain, Robot Operator, Impact Presenter</i>	Sep 2021 – May 2025
<ul style="list-style-type: none">Designed and prototyped mechanical subsystems in SolidWorks and Onshape for competition robots. (ex. reverse four bars, swerve drive, etc.)Trained 150+ new members in machining, CAD, and lab safety.Led pit crew operations and troubleshooting during competitions throughout a season of 3 months.Managed \$4,000+ fundraising and represented team in Impact and Outreach presentations.	

New York University Langone Hospital

<i>Cardiothoracic Research Intern</i>	Jun 2023-Jul 2023
<ul style="list-style-type: none">Observed robotic-assisted surgical techniques and thoracic procedures. (ex. da Vinci Surgical System)Conducted research on integrating robotics in cardiothoracic surgery.Collaborated with interdisciplinary healthcare teams to optimize patient care.	

PROJECTS

Prosthetic Hand Purdue ASME Biomechanics	Aug 2025 – Dec 2025
<ul style="list-style-type: none">Designed and 3D-printed a functional prosthetic hand using Autodesk Fusion 360, incorporating biomechanical joint motion and tendon-based actuation.Iterated designs through prototyping to improve strength, and range of motion.	

SKILLS

- Technical: CAD (SolidWorks, Onshape, Autodesk Fusion, NX), Java, Python, HTML, CSS, Robotics, Mechanical Prototyping
- Tools: Microsoft Office, Video Editing
- Soft Skills: Leadership, Project Management, Team Collaboration

AWARDS & ACHIEVEMENTS

- FIRST Dean's List District Championship Semi-Finalist (2024) - *recognized for technical leadership and innovation.*
- FIRST Robotics Competition World Championship Creativity Award (2024)
- FIRST Lego League Mentor Award Nominee (2024)