Swayam R

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EDUCATION

Georgia Institute of Technology | B.S. in Physics — Expected Graduation Dec 2028
Georgia State University | B.S. in Physics | GPA: 3.62/4.00 — Expected Transfer Fall 2027

TECHNICAL SKILLS

CAD & Fabrication: SolidWorks, Fusion 360, AutoCAD, 3D Printing
Robotics & Simulation: ROS 2, Gazebo, NVIDIA Isaac Sim, URDF, Servo Control
Electronics: Raspberry Pi, Arduino, EasyEDA, Sensor Integration
Programming & Data: Python, C++, Java, Advanced Excel

WORK EXPERIENCE

CAD & Mechanical Engineering at SwayForm LLC — Apr 2026 – Nov 2026

- Designed custom humanoid robot assemblies in Fusion 360, including a newly engineered 2-DoF shoulder mechanism with fully concealed servos.
- Designed the robot's power and servo circuitry to operate within maximum current limits, sourced rated components, and designed a custom PCB in EasyEDA.

Founder & Head of Business Operations | SwayForm LLC — Apr 2026 – Present

- Founded an educational robotics startup building humanoid robots and STEM learning tools; lead 9 contributors across engineering, curriculum, and outreach teams.
- Direct school outreach and business development, presenting products and meeting with school principals and district leaders about potential partnerships.

ENGINEERING PROJECTS

Humanoid Robot for Dynamic Motion & AI Control — Jan 2025 – Apr 2026

- Developed a design for a 4'5" bipedal humanoid robot using servo actuation and IMU feedback for pitch and roll correction.
- Designed a ROS 2 architecture combining motion control, local LLM interpretation, and sensor-based adaptation.

Robotic Arm on a Four-Wheeled Mobile Platform — Dec 2025 – Mar 2026

- Led CAD modeling and contributed to mechanical alignment, motor-driver integration, and power distribution layout.
- Supported system assembly, testing, and team coordination to validate platform operation.

LEADERSHIP EXPERIENCE

Founder & President | Engineering Club, Gwinnett Technical College — Jan 2026 – May 2026

- Lead mechanical, electrical, and programming teams in hands-on robotics projects and prototype development.

Mechatronics Head | Robotics Club, Georgia State University — Sep 2026 – Present

- Lead BattleBots and VEX Robotics competition teams through mechanical design, electronics integration, prototyping, and preparation.