Aarav Garg

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Education

Purdue University West Lafayette, IN

Bachelor of Science in Robotics Engineering, Certificate in Entrepreneurship & Innovation *Expected 2026*

- GPA: 4.0; Dean's List Student

Experience

Project Manager September 2023 – Present

Sphero Swarm

- Launched and spearheaded a new research project under a professor at Purdue University with 30+ team members across 5 sub-teams.
- Teams spread across technologies like OpenCV, Arduino, ESP32, and Fusion360.
- Using robot balls to create engaging exhibits depicting polymerization.
- Got the leadership position for the project in my first semester as a freshman at Purdue University.
- Made substantial progress with a passionate team in the very first semester of the project.

Founder & CEO 2021 – Present

Tech Nuttiez

- Founded an ed-tech startup–educates global youth on robotics and other new-age tech through an app.
- Built a very complex platform using Flutter (dart) and Firebase. Led a team of 30+ people and launched multiple summer internship programs for students with heavy global participation.
- 1.2 Million+ students impacted and 10,000+ active users from 180+ countries
- 12+ corporate partners and multiple educational institutional partners

Published Researcher May 2021 – Present

Multiple Projects

- 8 published articles on multiple projects of mine spread across 4 leading international electronics publications.

Projects

Robotic Arm That Learns | *Arduino Mega 2560, C++, Eagle PCB, Fusion360, TinkerCAD, VSCode*

- Built a robotic arm that can be trained on tasks without technical knowledge. Used Arduino Mega, and designed a custom PCB to ease the wiring.
- Project completely sponsored by 3 different brands. Designed the 3D model for the arm and the control panel in Fusion360.

Pocket Weather Station | *Arduino Nano, C++, Eagle PCB, Fusion360, TinkerCAD, VSCode*

- Created a pocket-sized weather station capable of measuring your place's real-time temperature, humidity, and basic weather conditions.
- Used a DHT11 weather sensing module with an Arduino Nano. Later upgraded to the better DHT22 sensor for precise weather readings.

Pencil Graphite-Based Flex Sensor | *Schematics, Electronics, Chemistry*

- Created a flex sensor by recycling pencil graphite. Dropped the cost from $20 to less than $1. Used the variable conductivity of pencil graphite to read electronic signals at varying analog values.

Handy Theodolite | *LIDAR, Electronics, Physics*

- Built a low-cost theodolite for farmers using household items, reducing the cost to $20 compared to the $800 industrial average.
- Recognized as a State Winner and National Qualifier at the National Science Exhibition in India for addressing the measurement and leveling needs of underprivileged farmers.

Technical Skills

Languages: Java, Python, C/C++, , JavaScript, HTML/CSS, R, Dart
Frameworks: Flutter, Firebase, NoSQL, WordPress, Wix, Android, Arduino, DOS
Developer Tools: Git, Google Cloud Platform, VS Code, Android Studio, IntelliJ, Jupyter Notebook, Firebase Console, Google Analytics, Google Play Console, Apple Developer Console
Technologies: PCB Designing, Soldering, Wiring, Schematics, CAD, Coding