

AVANEESH SIRIKONDA

Aurora, Illinois

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IMSA sophomore focused on CS & engineering; I build prototypes across robotics, data analysis, and ML-driven software. Seeking research and internship opportunities.

EDUCATION

Illinois Mathematics and Science Academy (IMSA)
High School Diploma — Focus: Engineering & Computer Science

Expected May 2028
Aurora, IL

TECHNICAL SKILLS

- **Programming:** Python, JavaScript, HTML/CSS, p5.js
- **CAD:** Fusion 360, OnShape, Tinkercad
- **ML & Tools:** TensorFlow, Teachable Machine, ml5.js, Git/GitHub, Bootstrap

PROJECTS

Personal Portfolio Website | *HTML, CSS, JavaScript, GitHub*

2026

- Designed and built a responsive single-page portfolio website to showcase robotics, CAD, and software projects.
- Implemented dynamic project filtering by category using vanilla JavaScript.
- Developed modal-based project views with smooth animations and interaction effects.

Micro:bit Workout Phase Coach | *Python, Micro:bit, Machine Learning*

2025

- Built a sensor-based fitness system to guide workout pacing across warmup, cardio, and cooldown phases.
 - Collected heart-rate and accelerometer data during live exercise sessions.
 - Trained a Python ML model to classify workout phases from physiological patterns.
- Autonomous Campus Monitoring Drone | *Python, CAD, Machine Learning, OnShape***
- Designed a drone concept for campus monitoring and anomaly detection at IMSA.
- Created a complete CAD model of the drone frame and component layout.
- Outlined a Python-based ML pipeline for analyzing aerial sensor and video data.

2025

EXPERIENCE

VEX Robotics Team — Builder & Driver

2021 – Present

Aurora, IL

- Constructed and tested robot structures for durability and competition performance.
- Iterated mechanical designs based on observed failure points.
- Operated as match driver under pressure with coordinated teamwork.

Python Data Analysis Coursework

2025 – 2026

Aurora, IL

- Performed data cleaning, exploratory analysis, and interpretation using Python.
- Applied statistics and visualization to identify trends in real-world datasets.

Volunteer Robotics Mentor

2023 – 2024

Aurora, IL

- Led sessions introducing students to robotics concepts and programming fundamentals.

AWARDS & HONORS

FIRST Lego League (2022–2024): Champion's Award Finalist; Engineering Excellence; Core Values; Robot Design Award

VEX Robotics (2021–Present): Tournament Champion; Finalist; Sportsmanship; Excellence Award

Illinois Solo & Ensemble (2022–2024): 3-time Number One Award

Academic Excellence (2019–Present): Maintaining Straight A's

LEADERSHIP / EXTRACURRICULAR

- **Captain, VEX Robotics Team (2023–Present)** – mentored members and guided design and match strategy.
- **Innovation Project Leader, FLL (2022–2024)** – coordinated research and presentations contributing to awards.
- **Clubs:** VEX Robotics, IMSA.ai, Varsity Table Tennis, AI Research Cohort, Web Development, IMSA Society of Engineers