

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* **2025**
– 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.

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