

# DEVEN V. BALAJI

[devenvbalaji@gmail.com](mailto:devenvbalaji@gmail.com) | (443) 953-9921 | U.S. Citizen  
<https://www.linkedin.com/in/deven-balaji-a93aba3a8>

## EDUCATION

Montgomery Blair High School Science, STEM Magnet Program | Silver Spring, MD  
GPA: 4.0/UW; 5.0/W (Honor Roll), 150+ Volunteer Hours

(Expected) May 2028

## WORK EXPERIENCE

Math Tutor & Grader, Kumon Learning Center (March 2026–present, ~7 hrs/week)

- Providing mathematics instruction and grading support for students.

## SKILLS

**Programming:** Java (2 years), Python (5 years)

**AI/ML:** Gemini SDK/API, OpenAI API, Roboflow Platforms: NVIDIA Jetson Nano, Raspberry Pi, Arduino

**Cloud:** AWS (full-stack deployment)

**Software:** Android Studio, VS Code, Eclipse, PyCharm, Git, GitHub, SourceTree

**Design & CAD:** OnShape (2 years)

**Relevant Coursework:** Algorithms and Data Structures A/B (AP CSA), Analysis of Algorithms, Analysis 1 A/B (AP Calc BC), Magnet Physics (AP Phys 1), Magnet Earth/Space Sci, Magnet Chem, Magnet Bio (AP Bio)

**Clubs:** USA AI Olympiad (Co-Founder, Co-Captain), Physics Team (Co-Captain), Makers Club (Co-Captain), Math Team, Tri-M Music Honors Society

## PROJECTS

### FIRST Tech Challenge (FTC) Robotics Competition

2025–26 Season: **Lead Software Developer** | Team **6417, Blu Cru** (2025–present)

- Developed autonomous and human operator (TeleOp) software for an 13-sensor robot including Limelight 3A vision.
- Won **1st place** Inspire Award (Goodall Division) at the 2026 FIRST World Championship, placing in the top ~0.1% of teams globally; qualified via 1st place Inspire at the Chesapeake Regional Championship (280+ teams).

2024–25 Season: **Lead TeleOp Developer** | Team 25865, FeNiX.exe

- Developed state-machine-based TeleOp software for an 11-sensor robot.
- Won 1st place Inspire Award at the Chesapeake Regional Championship (250+ teams); qualified for FIRST Championship 2025 in Houston, TX.
- Recruited by Blu Cru in summer 2025 to accelerate software development and testing for the Maryland Tech Invitational (MTI) at Johns Hopkins APL; team placed 13th out of 42 teams.

2023–24 Season: **Lead Software Developer** | Team 23495, Equinox

- Led software development, architecture, and sensor integration for a 6-sensor robot.

### PeanutPrep.com: Prep Platform for National Math & Physics Competitions (Feb–Apr 2026)

- Developed and deployed a full-stack AWS web application that uses Claude APIs to extract archived test content, provide AI problem-solving support, and track user performance analytics.

### Garden Iron Dome: AI Deer Detection & Garden Defense System (Ongoing)

- Prototyping an NVIDIA Jetson Nano-based edge AI system using real-time computer vision to detect/deter deer.

### Scout: An AI Assistant for the Visually Impaired (Jan-Mar 2024)

- Designed and prototyped a Gemini-powered multimodal AI system to assist the visually impaired in daily life.
- Implemented the system on Raspbian OS, Python, Google's speech-to-text, Pico2Wave's text-to-speech, EvDev.
- Won 1st place at the ScienceMontgomery Science Fair (Computer Science Division) and named a Top 300 out of 1862 in the National Innovator in the ThermoFisher Junior Innovators Challenge.

## AWARDS

### Math Competitions

- 2x American Invitational Mathematics Exam (AIME) Qualifier (9th & 10th Grade).
- University of Maryland Math Competition Honor Roll (2025).
- 7th place, Maryland MATHCOUNTS State Competition (2024).
- Qualified for Math League Nationals (2022).

### National Science Bowl

- 1st place in the Maryland Middle School Regional Science Bowl.
- Placed in the top 7 in the Middle School National Science Bowl.

Last updated: 5/25/2026