

Ria Shah

Innovator blending engineering, arts, music, and biomedical concepts to design technologies that solve real-world challenges and inspire others.

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PERSONAL PROJECTS

Innovation - Posture Correction Wearable, Patent Pending

Created a sEMG+IMU sensor based wearable that alerts to correct posture; designed as a smarter alternative to mechanical braces that may weaken core muscles and IMU-only devices that produce false positives.

Innovation - Singer Guided Accessible Piano Tech

Developed a Teensy microcontroller based device that lets a piano follow a singer's voice in real time, without pre-programmed notes, expanding access for those w/o piano training; refining for greater responsiveness.

LEADERSHIP AND VOLUNTEER WORK EXPERIENCE

Wake County Society of Women Engineers Next (SWENext), Hybrid - Founder and President of the local chapter

JAN 2025 - PRESENT | 8 hours per month

Leading outreach and organizing workshops to inspire girls; matched over \$1000 of business donations to STEM non-profits in NC rural areas.

Khan Academy, Online - SAT Math Tutor

FEB 2025 - PRESENT | 6-student cohort, 8 sessions/month, completed 3 cohorts

Tutoring SAT Math with focus on concept mastery, analytical thinking, and improving scores while strengthening leadership and time management.

EDUCATION AND ENRICHMENT COURSES

Panther Creek High School, Cary, NC - GPA UW 4.0, W 4.5

AUG 2022 - PRESENT, Senior Year Student

Python Programming I & II, AP Computer Science Principles & Applications

MIT Beaver Works Summer Course - Microelectronics &

Hardware Development: Studied circuits, microcontrollers, and embedded systems; applied concepts to design two innovative HW projects

Inspirit AI Machine Learning Course - Detecting Pneumonia from X-ray Images

- Explored neural networks, computer vision, and NLP concepts through mentor-led learning;

SKILLS

Python - ●●●○○

Java - ●●●○○

Arduino - ●●●○○

Basic understanding of AI and Machine Learning concepts

Prompt Engineering using ChatGPT and Claude

AWARDS

ACT score of 35 - scored in top 99.44 percentile per 2024 data

TSA Children's Storybook - Regional Gold Medalist, State Semifinalist; showcased creative writing, illustration, and tech education for kids.

INTERESTS

Global Development: Clean water, low-cost technologies, equitable access to resources

Innovation & Collaboration: Hackathon participant, technology for social good, creative problem-solving

Climate Advocacy: CleanAIRE NC Ambassador, sustainability, environmental awareness