Samarth Aradhya

linkedin.com/in/samarth-aradhya

EDUCATION

Purdue University — West Lafayette, IN
Bachelor of Science in Cybersecurity, Planned double major in Mechanical Engineering — *Aug. 2025 – May 2029*

EXPERIENCE

Code Ninjas Tutor — May 2022 – March 2025
San Ramon Code Ninjas — *San Ramon, CA*
- Taught students foundational programming in JavaScript, Python, and Robotics, guiding students through debugging and project development.
- Initiated and led the development of a new 3D Printing and Modeling Camp introducing students to CAD software and plysical development of their ideas

Head Designer — Sep. 2022 – Mar. 2024
California High School Robotics Club — *San Ramon, CA*
- Served as head structural designer for my team
- Worked with a team of four members in designing and building competition robots

Eagle Scout — March 2019 – Present
Scouts of America, Boy Scouts Troop 84 — *San Ramon, CA*
- Completed 100+ hours of community service through conservation projects, food, and toy drives
- Led and coordinated teams of younger and older scouts during outdoor projects and expeditions emphasizing safety, planning, preparedness and success
- Planned multi-stage troop events and logistics such as equipment and routes during changing times such as the COVID lockdown

PROJECTS

Finger Tracking Glove | *Embedded Systems, Sensors, Human - Machine Interface* — September 2025 – Present
- Developed a wearable glove that tracks finger flexion using calibrated flex sensors and streams data real time using an ESP32 micro controller
- Designed a digital 3D model that accurately shows hand position based on information from glove.
- Working on integration with a robotic hand for remote manipulation

ESP32 Wi-Fi Robotic Spider | *Computer Vision, Wireless Control* — October 2024 – December 2024
- Built a mobile robotic platform with real time video streaming suing an ESP32-CAM chip
- Implemented a real-time control system built on a Web Application
- Worked with low level debugging and multi-system synchronization for field robotics applications

Game Development — March 2019 – Present
- Designed and programmed over 10 game prototypes exploring diverse mechanics and systems architecture.
- Developed projects using C#, JavaScript, and have attempted custom-built engines to integrate physics, AI behavior, and user interaction.
- Incorporated real-time security validation and memory monitoring to prevent memory scanning and process injection.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, C++, HTML
Software/Tools: Unix, Windows, CAD, Unity, Godot, Arduino, Raspberry Pi, 3D Slicers, Firebase
Other: Strong teamwork and collaboration skills, robotics design and programming, tutoring and mentoring, problem-solving through project-based learning

ACTIVITIES

Purdue University — West Lafayette, IN
Formula Baja, Purdue Badminton Club — *Fall 2025 – Present*