

# Rohan Menon

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An engineering student with a focus on embedded devices, sensors, and wireless technologies who thrives in fast-paced, collaborative environments.

## Education

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- 2021-Present University of Washington in Seattle · Second year  
Electrical and Computer Engineering
- 2017-2021 Niskayuna High School · Niskayuna NY

## Research

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- 2022-Present [UW Sensor Systems Laboratory with Prof. Joshua Smith](#)  
Works on [WISP](#), a family of batteryless sensors that are powered by and communicate entirely through UHF RFID power harvesting and backscatter.
- Develops hardware and firmware for the next generation of WISP sensors and desktop software for developing applications with WISP devices
  - R. Menon\*, R. Gujarathi\*, A. Saffari, J. Smith, "[Wireless Identification and Sensing Platform Version 6.0](#)," to be presented at ACM LP-IoT, 2022 (\*Authors contributed equally)
- Summer 2019 Lake Submersible with Prof. William Keat  
Worked with Professor Keat of Union College in his mechanical engineering lab on a ballast-controlled submersible designed to explore and photograph a local lake.
- Explored magnetometer-based sensing to locate a sunken car
  - Coordinated with Union's Geosciences Department for our in-water test

## Projects

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- 2016-2021 Technical Design Lead - [NY STEAM Bus](#)  
A student-founded and led school bus retrofitted with STEAM education technology that produces and teaches lessons to middle and elementary school students.
- Designed initial school bus retrofit and took part in its physical renovation
  - Responsible for technology used in student lessons and for operating the program
- 2020-2021 [Resonant](#)  
A system to localize and identify ambient noises and present them to a user through a wearable device.
- Developed a 3D sound localization algorithm using a microphone array with phase shift estimation and created a heads-up display to communicate this information to a user
  - Received Highest Honors at the STANYS science and engineering fair
- 2018-2020 [Aquametric](#)  
Ultra low power, real-time, stream and river monitoring devices with a battery life of up to one year in the field.
- Worked with low-power hardware and firmware, LoRa communication, cellular IoT devices, and ultrasonic/LiDAR ranging technologies
  - Won the [Hackaday Bootstrap Award](#) and was a [finalist for the Hackaday Prize 2020](#), an international competition for open-source hardware and software

## Skills

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### Hardware

- PCB design and assembly
- IoT (WiFi/Cellular/LoRa) devices
- CAD and rapid prototyping

### Software

- Python, Java
- Embedded C/C++ and low-level programming
- Web development - SASS, JS/React, PHP