

Rohan Menon

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An engineering student deeply interested in embedded devices, sensors, and wireless technologies who thrives in fast-paced, collaborative environments.

Education

2021-Present **University of Washington in Seattle · Class of Fall 2023**
Electrical and Computer Engineering

Research

- 2022-Present **UW Sensor Systems Laboratory with Prof. Joshua Smith**
Worked on WISP, a family of batteryless sensors that are powered by and communicate entirely through UHF RFID power harvesting and backscatter.
- Developed hardware and embedded firmware for the next generation of WISP sensors and desktop software for developing applications with WISP devices
 - Presented our work at EnsSys 2022, a workshop at ACM SenSys
 - R. Menon, R. Gujarathi, A. Saffari, J. Smith, "Wireless Identification and Sensing Platform Version 6.0", EnsSys 2022
- 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-field test

Projects

- 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

Hardware

- Digital circuit design, PCB design
- Cellular/LoRa/RFID devices
- Low power sensing systems
- CAD and rapid prototyping

Software

- Python, Java, R
- Embedded C/C++, Assembly language
- Desktop app development
- Web development - JS (React, Node)