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Major: Electrical Engineering

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Research Area: Wireless Sensor Networking

This research project involves the integration of sensor technology, wireless communications, and computer networking. Wireless sensor networking offers the opportunity to make sensor measurements in harsh environments and remote locations, collect the sensor data at a central repository, and make the data available to anyone with network access. My role in the research project includes data collection and evaluation, and checking out wireless communications prototyping hardware.

Specific subtasks include:

1. Learning how to collect temperature and pressure data on an ORNL experimental machine
2. Learning LabVIEW programming functions and assisting in the development of an instrumentation interface to automatically collect and evaluate the temperature and pressure data
3. Learning to check out complex multi-level printed circuit boards being developed for use in a wireless communications transceiver prototype. The check-out will involve ensuring that the boards will function as intended and will include design verification, continuity checks, and trace routing.

Research Mentors:

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