

**Organization Name:** Institute for People and Technology, Georgia Tech

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**Organization Mission:** The Institute for People and Technology (IPaT) brings together researchers from across Georgia Tech to support world-class research, engage students, and collaborate with industry, government, and non-profit partners.

**Internship Semester:** Summer 2020

**Project Title #1:** Smart Sea Level Sensor Project - Emergency Management Portal

**Keywords:** Development, Response, Outreach

**SLS Priority Issue Areas:** Climate Change, Green Infrastructure, Water, Citizen Science

**Project Background:** The Smart Sea Level Sensors project is a partnership between Chatham Emergency Management Agency officials, City of Savannah officials, and Georgia Tech scientists and engineers who are working together to install a network of internet-enabled sea level sensors across Chatham County. The real-time data on coastal flooding will be used for emergency planning and response. See the project details at <https://sealevelsensors.org/>

**Project Timeline:** This is an on-going project with several partners. As short-term milestones will get completed the project will evolve to include a broader scope and more communities.

**Desired skills and qualifications:** Strong sense of visual design and user experience, Experience with modern web frameworks (eg Express.js or Flask on the backend; React or Vue on the frontend), Software development experience in one or more general purpose programming language, such as Python, JavaScript, or Java

**Deliverables:** Updates and launch of emergency management portal. Help w/ presentation to Public Officials and Local Residence.

**Project Title #2:** Smart Sea Level Sensor Project – Air Quality Sensors

**Keywords:** Community, Environment, Development

**SLS Priority Issue Areas:** Climate Change, Community Health

**Project Background:** The Smart Sea Level Sensors project is a partnership between Chatham Emergency Management Agency officials, City of Savannah officials, and Georgia Tech scientists and engineers who are working together to install a network of internet-enabled sea level sensors across Chatham County. The real-time data on coastal flooding will be used for emergency planning and response. See the project details at <https://sealevelsensors.org/>. You will work with the team to extend the current sensor project to include air quality, weather, and other environmental sensors. This will include work integrating sensors with new hardware and firmware. It will also involve application and API

development work to use the sensor data. There is an opportunity for field deployment work at GT Atlanta and in Savannah.

**Project Timeline:** This is an on-going project with several partners. As short-term milestones will get completed the project will evolve to include a broader scope and more communities.

**Desired skills and qualifications:** Experience with maker project boards such as Arduino or Raspberry Pi, Interest in air quality and environmental monitoring solutions, Strong problem-solving skills, adaptable, proactive, and willing to take ownership.

**Deliverables:** Operational sensors, deployed in the Savannah area. Applications using the sensor data.