Organization Name: Institute for People and Technology, Georgia Tech

Organization Contact Person: Russ Clark

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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.

Social Innovation Statement: Student interns will be working with the Smart Sea Level Sensors project team, a unique program deploying the highest density network of water level monitors in the world. They will be directly involved in the advancement of new sensor technologies, data analytics applications, and community engagement.

Internship Semester: Summer 2021

Project Title #1: Smart Sea Level Sensor Project - Dashboard Applications

Keywords: Development, Response, Outreach

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

Priority SDGs: Industry, Innovation, and Infrastructure (9), Sustainable Cities and Communities (11), Climate Action (13)

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: Web Application Development, User Interface Design and Evaluation, Communication skills

Deliverables: Web application; demonstration and communication with community partners

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

Keywords: Development, Response, Outreach

SLS Priority Issue Areas: Climate Change, Community Health

Priority SDGs: Good Health and Well-being (3), Sustainable Cities and Communities (11), Climate Action (13)

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: Interest in air quality and environmental monitoring; Strong problem-solving skills, adaptable, proactive, and willing to take ownership; Experience with project boards (e.g. Arduino) and sensors desirable but not required.

Deliverables: Operational sensors deployed at GT and Savannah; Applications using sensor data