



“I’m on a mission to record the Earth. And I use that information to ask questions like: what’s the status of the planet right now?”

– **BRYAN C. PIJANOWSKI** PhD
PROFESSOR OF LANDSCAPE
AND SOUNDSCAPE ECOLOGY
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→ EXPLORE DIGITAL GAME CHANGERS



SOUND WITH A VISION: WHAT OUR PLANET IS TELLING US

The crushing groan of a glacier. The reverberating explosion of a thunderstorm. A midnight choir of tree frogs in the rain forest. These are the immersive sounds that researchers at Purdue University’s Center for Global Soundscapes are inspired by. And for good reason: By listening to our planet, we can discover things we can’t see. Using AI to unravel the sounds of our ecosystems could be the next step in preserving them for future generations.

USE CASES

- Map the planet’s major biomes with technology that sees what the eye misses
- Discover how soundscapes change over time by detecting what’s there and what’s missing
- Preserve the sounds of the planet for future generations

REQUIREMENTS

- Build a data pipeline from the most remote locations on the planet back to the university
- Organize and tag the audio files to train the AI algorithm to detect the sounds of our planet
- Visualize data insights to see how ecosystems change over time

SOLUTION

The university partnered with HPE Pointnext Operational Support Services to deploy HPE Edgeline Converged Edge Systems and HPE Apollo 4000 Systems. Working in conjunction with HPE Partners Apache and Micro Focus, the team built a system to study petabytes of audio data.

OUTCOMES

- Enables the study of petabytes of audio data
- Delivers insights into ecosystems that visual media often miss
- Consolidates field data from around the globe in a secure environment
- Provides a way for volunteers to contribute to the project from anywhere

KEY PARTNERS

- Micro Focus
- Apache

ADDITIONAL RESOURCES



[CASE STUDY: Sound with a vision: What our planet is telling us](#)



[VIDEO: Purdue University Center for Global Soundscapes: The sounds of science](#)