Tentative List of Workshops - 2025 PDAL Conference

3D Watershed Models

- Point source and non-point source pollution
- Visualize how we affect our watershed AND how our watershed affects us

Relevant Virginia Standards of Learning (SOLs):

- ES.8 (The Water Cycle and Surface Water)
  - ES.8a
  - ES.8b
- ES.9 (Weather and Climate)
  - ES.9b
- BIO.6 (Ecosystems)
  - BIO.6a
  - BIO.6b

Designing, Building, and Setup of Aquaponics System

- Interdisciplinary – understanding how if function requires full grasp on physics, chemistry, and biology
- Valuable experience in data analysis, graphing, food security, and resource management- all within context of sustainable agriculture

Grading Oysters, The perfect fit for our Keystone Species, from consumption to conservation

- National resources, renewable vs. nonrenewable
- How does this affect the economy? The Environment?

Sorghum DNA Extraction

- Allow participants to physically engage with the process of extracting DNA and learn how DNA plays a critical role in understanding plant genetics and agriculture.
- Plant DNA and cellular structure
- Sustainable agriculture

Art in Science

- Intersection between creativity and scientific concepts. Explore the concept of symmetry by looking at examples from the natural world and then creating their own symmetrical artwork
- Mimicry/ Symmetry

Quadrat Habitat Assessment

- Talk about native flora and fauna, nonnative/invasive species

· Teach participants about ecology, biodiversity, and the importance of habitat assessment in environmental science
· Understand how scientists study ecosystems, measure biodiversity, and assess environmental health through sampling techniques like quadrat surveys