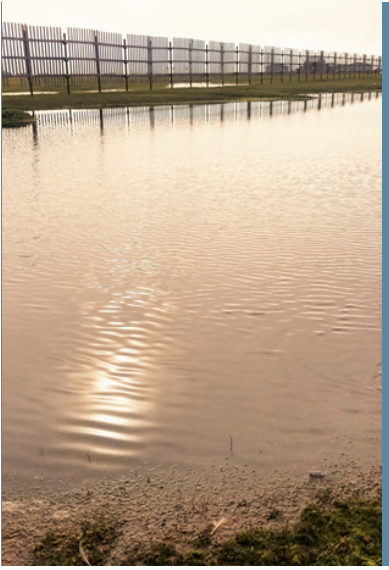

Arctic Environmental Sensing of Natural-Built Systems

Seeking 2 Ph.D. Students
University of Virginia

Transdisciplinary project includes environmental scientists, local residents of Utqiagvik, architects and designers, social scientists, and data scientists to explore how the built environment interacts with natural systems, and how to use this information in design and planning decisions.

Terrestrial:

Create a network of micrometeorological stations to monitor land-atmosphere interactions along coastal and urban gradients in the Arctic. Extensive datasets will be analyzed to understand how components of the built environment influence local meteorological conditions, and part of the project will include stategies for making data accessible to various stakeholders. Co-advised by Dr. Howie Epstein (UVA Environmental Sciences) and Dr. Luis Felipe Murillo Rosado (UVA School of Data Science).

Aquatic:

Install a network of water level and water quality sensors in ponds and lagoons throughout Utqiagvik, AK and the adjacent tundra. Collected data will be used to understand interactions between hydrochemistry and infrastructure at a landscape scale. Project will include significant data visualization components. Co-advised by Dr. Howie Epstein and Dr. Claire G. Griffin (UVA Environmental Sciences).

Qualifications:

- Bachelor's degree in environmental science, data science, ecology or related field. Master's degree a plus.
- Previous research experience is preferred, especially using environmental sensing equipment, handling large datasets, or time series analyses.
- Interest in field and data science and strong communication skills are required. This project centers on collaboration with a wide range of team members, including Utqiagvik residents, architects, designers, and social scientists. **Willingness to listen and engage with a diverse group is essential.**

To apply: Contact Dr. Epstein prior to application to discuss projects at hee2b@virginia.edu. Students who are interested should contact Dr. Epstein by **October 1st, 2020**, and send a brief description of their research interests and experience, a CV/resume, and informal transcripts. Applications fees may be waived on request.Candidates from diverse cultural and educational backgrounds including women, LGBTQ people, people of color,and members of other underrepresented communities are strongly encouraged to apply.

Start date: January or June 2021