Continuing Project

Monroe Community College Geospatial research experience with University of Maine – CAFS

Funding provided by *Skills Training in Advanced Research & Technology (START) Supplemental Funding Request for ATE at Monroe Community College (Award #1955256) with IUCRC Phase 3 at University of Maine - Center for Advanced Forestry Systems (CAFS)*.

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Dr. Aaron Weiskittel, University of Maine and CAFS Director

Presenter: Jonathon Little

Justification

- MCC has a NSF Advanced Technological Education grant: (Award #1955256) *Meeting Workforce Needs for Skilled Geospatial Technicians through Virtual Geospatial Information Science Technology (GIST) Education*
- *Program consists of an online stackable A.A.S. in GIST, 24 credit GIST Certificate, and a 9 credit GIST micro-credential for professionals (Python, web mapping, data)*
- *Program offers alumni and peer support, virtual desktop, virtual internships (for credit and paid), and more.*
- *Up until the START grant, the program was lacking research opportunities.*

Objectives

1) Partner with the University of Maine's CAFS faculty/staff
2) Provide two 2-year Community College students with a paid 8-week summer internship
    - Collect and process field data for remote sensing applications, particularly tree species composition
    - Present work
3) Provide 2 students with a credit-based virtual internship
4) Present work

(LEFT): Casmir & Rissa recording data. (CENTER): Wayne calculating azimuth with a compass. (RIGHT): Casmir using a BAF prism to identify variable point samples.

Methods

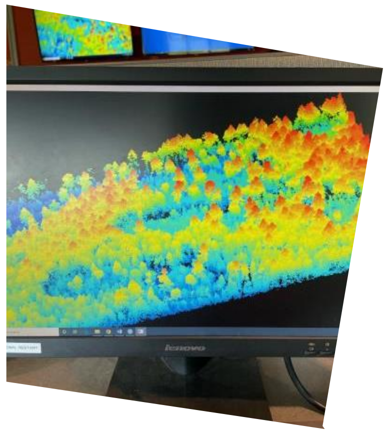
- MCC faculty provide guidance/support
- Students work with CAFS partners in Maine.
  - Barbara Wheatland Geospatial Lab (Tony Guay, Dr. Kasey Legaard, Dave Sandilands, & Dr. Dan Hayes)

Kasey, Casmir, and Bryon working on Round 2 of training samples for cloud masking.

  - Penobscot Experimental Forest (Graduate students, Stephanie Wilsey and Rissa)
  - Town of Orono (student Dave Ludwig)
  - University of Maine at Fort Kent (Dr. Ned Rubert-Nason)
  - Dr. Pari Rahimzadeh
  - Schoodic Institute (Dr. Peter Nelson)

Major Findings

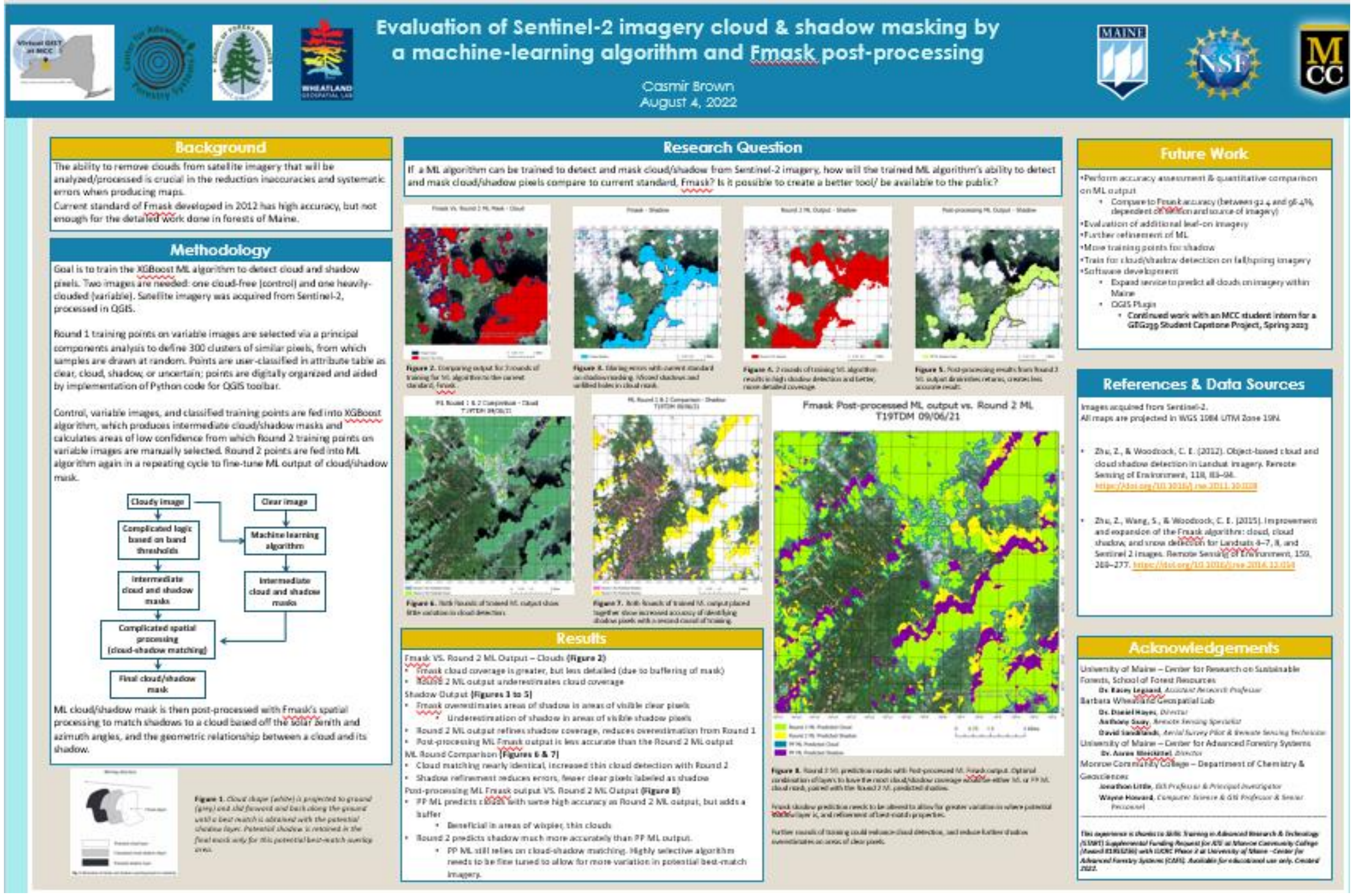
- Successful experience thanks to Dr. Aaron Wiskettiel and CAFS partners!



Tony giving a presentation on remote sensing and data collection/processing.

Deliverables

- Student Story Map (Week 1-4, 5-8)
- Student Presentations and Poster



Company Benefits

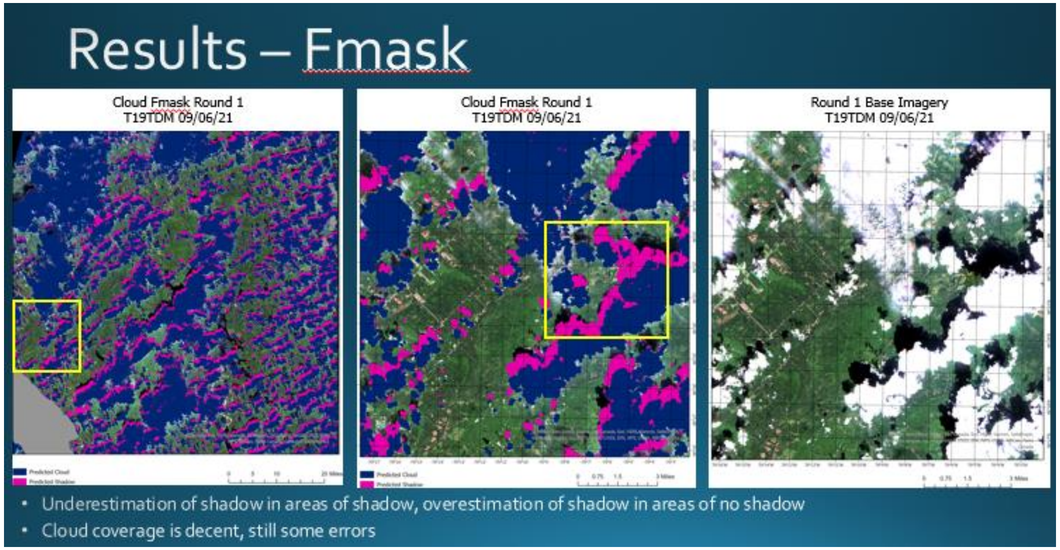
- Expand institutional knowledge re: student summer research experiences

- Share geospatial educational opportunities at MCC

Recommendations

- We are always looking for internship hosts for our Geospatial Capstone course offered Feb-May each spring. This is the last course in our 5 course GIS Certificate program and in our 8 GIS AAS. If interested, let me know.

- Consider partnering with CAFS on a NSF REU (Research Experience for Undergraduates)



Summary

1) Partnered with the University of Maine's CAFS faculty/staff and provided two 2-year Community College students with a paid 8-week summer internship
2) Thank you Dr. Aaron Weiskittel and everyone we worked with this summer with CAFS!
3) Looking ahead
   - Two virtual internships planned with Dr. Kasey legaard and Barbara Wheatland Geospatial Lab spring of 2023.
   - Present at CAFS IAB meeting spring of 2023
   - Consider partnering with CAFS on NSF REU