Grad student position

The UMaine Glaciology and CompuMAINE labs are looking for an interdisciplinary Masters student who will assist in the NASA-funded project “Quantification and Analysis of Greenland Glacier and Ice Cap Discharge using Automated Landsat Terminus Change Time Series and NASA Data Products” starting in Fall 2018 (or later). This is a joint project led by Dr. Ellyn Enderlin from the Climate Change Institute and School of Earth and Climate Sciences and Dr. Andre Khalil, founder and director of the CompuMAINE Lab.

The overall aim of the proposed project is to quantify dynamic mass loss from Greenland’s peripheral glaciers and ice caps (GICs) over the last two decades and to assess variations in their ice discharge with respect to atmospheric and oceanic forcing. Two questions guide this work:

1) Has terminus retreat and/or ice flow acceleration substantially contributed to mass loss from Greenland’s GICs over the last two decades?
2) Do spatial and temporal patterns in Greenland GIC dynamics differ from the ice sheet’s outlet glaciers due to differences in their sensitivity to atmospheric and oceanic forcing?

The CompuMAINE Lab (Computational Modeling, Analysis of Imagery, and Numerical Experiments) is an image and signal processing, analysis, and modeling laboratory located at the University of Maine flagship campus. The CompuMAINE lab is collaborating with the Enderlin lab to develop an automated satellite image analysis procedure to help answer the questions above. The graduate student will be expected to lead the numerical analyses under the co-mentoring of Drs. Enderlin and Khalil. The graduate student will also be expected to present the results of his/her analysis at relevant scientific meetings (for which travel funds are available) and assist with manuscript preparation.

A stipend of $21,000/year, tuition waiver, and health insurance coverage are available, for two years.

Please contact Dr. Ellyn Enderlin or Dr. Andre Khalil if you are interested in learning more about this graduate opportunity.