

- 1) Description of proposed topic.
 - a. Implementing the Sobel edge-detection filter of monochrome images in python/numba (as seen in the imaging reference provided samples of the CUDA toolkit). Identifies edges in the image by analyzing pixel similarities with its neighboring pixels.
- 2) What you plan/hope to actually do regarding the topic? (Do you aim to implement a particular piece of software or is your goal to "learn and report" about the topic? Do you have an existing connection with the topic or do you aim to learn about something completely new to you?)
 - a. Goal is to implement the filter that takes in image data and outputs the edge-detected version. Involves converting CUDA C/C++ code sample into python/numba. Hoping to learn skills relevant to image processing in general (there are similar sample codes for denoising and blurring).
- 3) Description of project team: Do you plan to work alone or with a partner? If you plan to work with a partner, please specify who your partner will be, and BOTH PARTNERS SHOULD SUBMIT A COPY OF THE PROPOSAL to help us keep track of who has submitted a proposal.
 - a. Individual project – no team