




Master's Independent Study Authorization Form

Student Information	
Name: (Last, First) Bitton, Joanna	University ID # N <u>13122072</u> _____

Independent Study Information	
Term & Year Term: <u>Spring</u> Year: <u>2019</u>	Number of Credits: <u>3</u>

Brief Description of Independent Study:

In conjunction with Dr. Dennis Sasha and Dr. Aristotelis Tsirigos, I plan to develop various deep learning algorithms in the domain of lung cancer. Dr. Tsirigos' lab has demonstrated that specific types of lung cancer can be diagnosed with a higher accuracy than a single pathologist. My goal is to extend their work and look at whole-slide images of lung cancer to determine the different attributes apparent in each image (i.e. blood vessels, dead cells, tumors, etc). This will require the use of unsupervised learning in clustering the various regions into attributes. If this is successful, we will provide the clusters to domain experts for annotation. This, in turn, will allow us to investigate what clusters surround tumors and how certain configurations affect survival rates.

SIGNATURES		
Student Name: Joanna Bitton	Signature: 	Date: 02/04/2019
Professor Name:	Signature:	Date:
DGS Name:	Signature:	Date:

IMPORTANT GUIDELINES FOR INDEPENDENT STUDY

- ❖ Students must arrange to work on independent study projects under the direction of a full-time Department of Computer Science faculty member.
- ❖ Students should submit this form, after it is completed and signed off on by the professor, to their advisor, either Katie Laugel in CIWW 326 or James Paguyo in CIWW 324.