**Cover Letter for ELEG5491 Final Project 2017**

***Part A: Completed by Student***

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| Paper  ID | 1155070507 | Student Name | Zhizhong Li | Topic Area | 1. GAN 2. Visualization |
| Title: | Geometric View of GAN and Visualization | | | | |
| Abstract | We view the task of Generative Adversarial Networks as manifold learning. Instead calling it as noise, we see the latent space as the coordinate of the data manifold. The generator is the function that maps coordinates to data manifold. Thus, other than the traditional approach that investigating the probabilistic properties of the noise distribution and the data distribution, we ask whether the geometric and topological properties of latent space and data manifold interact with each other. Specifically, we visualize the effect of dimensionality, connectivity, and topology of latent space and data manifold using specially designed toy experiments. | | | | |

***Part B: Completed by Course Staff***

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| Review Comments from TAs | | | | | | Paper Rating |  | | |
| (Based on initial paper)  Got some concerns.  -----------------  (Update based on final submission)  I like the paper. | | | | | | | | | |
| TOTAL: \_\_\_\_\_\_\_\_\_ Score in details: | | | | | | | | | |
| Proposal (10%) |  | | Poster (10%) |  | Paper (50%) Presentation (30%) | Paper:  Presentation: | | Bonus |  |
| TA-in-charge | |  | | | Instructor’s Signature |  | | Date | Apr \_\_\_ 2017 |