Chapter 2 Outline Marvin Newlin

- Generative Models
 - GAN

[1], [2], [3],

 \circ Improvements on GAN

[4], [5]

Others

[6], [7]

- Data
 - Types of data for generative modeling [8], [9]
 - Problems with data generation[7]
- Evaluation Criteria
 - Statistical
 [4], [5], [6], [10]
 - Subjective[3], [7]

Bibliography

- [1] I. J. Goodfellow et al., "Generative Adversarial Nets," 2014.
- [2] M. Arjovsky, S. Chintala, and L. Bottou, "Wasserstein GAN," Jan. 2017.
- [3] A. Grover, M. Dhar, and S. Ermon, "Flow-GAN: Combining Maximum Likelihood and Adversarial Learning in Generative Models," pp. 3069–3076, 2017.
- [4] T. Salimans, I. Goodfellow, W. Zaremba, V. Cheung, A. Radford, and X. Chen, "Improved Techniques for Training GANs," Jun. 2016.
- [5] I. Gulrajani, F. Ahmed, M. Arjovsky, V. Dumoulin, and A. Courville, "Improved Training of Wasserstein GANs," 2017.
- [6] M. Wurzenberger, F. Skopik, G. Settanni, and W. Scherrer, "Complex log file synthesis for rapid sandbox-benchmarking of security- and computer network analysis tools," *Inf. Syst.*, vol. 60, no. C, pp. 13–33, Aug. 2016.
- [7] V. Kulkarni and B. Garbinato, "Generating synthetic mobility traffic using RNNs," in *Proceedings of the 1st Workshop on Artificial Intelligence and Deep Learning for Geographic Knowledge Discovery GeoAI '17*, 2017, pp. 1–4.
- [8] Z. Hu, Z. Yang, X. Liang, R. Salakhutdinov, and E. P. Xing, "Toward Controlled Generation of Text," Mar. 2017.
- [9] Y. Li, Q. Pan, S. Wang, T. Yang, and E. Cambria, "A Generative Model for category text generation," *Inf. Sci. (Ny).*, vol. 450, pp. 301–315, 2018.
- [10] M. Du, F. Li, G. Zheng, and V. Srikumar, "DeepLog: Anomaly Detection and Diagnosis from System Logs through Deep Learning," in *Proceedings of the 2017 ACM SIGSAC Conference on Computer and Communications Security CCS '17*, 2017, vol. 31, pp. 1285–1298.