

Utilizing Generative Adversarial Networks (GANs) to Generate Training Data for Machine Learning Algorithms

About Sosias Data

We are a Data-Mining startup founded by three students from TUM. We mine publicly available data of companies and sell it aggregated to our customers through our Web-App.

About the project

The task is to utilize Generative Adversarial Networks (GANs) to generate training data for our machine learning algorithms. The objective is not to reinvent the wheel but to leverage existing techniques to achieve the best results.

Scope of the project

- 1. Develop a working prototype
- 2. Provide an overview of state-of-the-art GAN techniques for generating training data and include a performance evaluation

Expected outcome

- 1. Working Prototype (via e.g. GitHub Repo, Colab Notebook whatever you feel comfortable with, but please not Dropbox ;-)
- 2. Short informal report about state-of-the-art GAN techniques for generating training data and their evaluation.

What you can expect from us

You will be assigned to one of our founders who will take care of you during the semester via regular 1 to 1 meetings (online or offline) and support you in the project. We are very flexible in terms of working time and will of course stay within the boundaries of the IDP's ECTS limit.

What we expect from you

If you can work independently and want to do something hands-on, then we are your partner! Besides the regular meetings you will have complete freedom in terms of time management or the choice of used techniques. If you think using a specific GAN model is best – we will do it, if not – then not. It's your project!

Interested? Write us!

Send us a short mail answering us why you want to work on this project specifically and what your knowledge in the field of NLP is (lectures, Praktika, etc..). Send it all to Benedikt Reinhard (Please call me Ben), <u>breinhard@sosias-data.de</u>.