

25th Vienna Deep Learning Meetup



27th March 2019 @ A1



Vienna Deep Learning Meetup



The Organizers:



René Donner
contextflow



Thomas Lidy
Musimap



Alex Schindler
AIT & TU Wien



Jan Schlüter
OFAI & UTLN

Vienna Deep Learning Meetup



Agenda:

- Welcome
- Introduction by our host: Denis Filazafovitch, Head of Digital Transformation, A1
- An introduction to state of the art in NLP using Deep Learning
by Liad Magen, EnliteAI
- <Break>
- Teaching machines to understand natural language conversations: a bag of tricks
by Jason Hoelscher-Obermaier, AI Expert & Software Developer, Ondewo
- Hot Topics - by Thomas Lidy, Musimap
- <Networking and Discussions>

Announcements

VDLM on Github

<https://github.com/vdlm/meetups>

- all talks
- slides
- photos
- videos
- Wiki

Meetups

#	Date	Place	Topic	Link	Video	Meetup.com
1	2016-04-07	Sector 5	intro	more		link
2	2016-05-09	Sector 5		more		link
3	2016-06-06	Sector 5		more		link
4	2016-07-07	TU Wien		more		link
5	2016-09-22	Automatic Software GmbH		more		link
6	2016-10-12	Sector 5		more		link
7	2016-12-01	Agentur Virtual Identity		more		link
8	2017-01-17	TU Wien Informatik		more		link
9	2017-02-21	bwin.party services (Austria) GmbH		more		link

Talks

Date	MU#	Speaker	Topic	Slides
2016-04-07	1	Thomas Lidy	An overview presentation of Deep Learning	pdf
2016-04-07	1	Jan Schlüter	History, Approaches, Applications	pdf
2016-05-09	2	Alex Champandard	Neural Networks for Image Synthesis	
2016-05-09	2	Gregor Mitscha-Baude	Recurrent Neural Networks	pdf
2016-06-06	3	Jan Schlüter	Open-source Deep Learning with Theano and Lasagne	pdf
2016-09-22	5	Josef Puchinger	Deep Learning & The Future of Automation	
2016-09-22	5	Christoph Körner	Going Deeper with GoogleNet and CaffeJS	pdf

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Code Issues Pull requests Projects Wiki Insights

No description, website, or topics provided.

49 commits 1 branch 0 releases 2 contributors

Branch: master New pull request Create new file Upload files Find file Clone or download

slychief update photos Latest commit a2631e6 20 days ago

Logo more content 25 days ago

Meetups update photos 20 days ago

README.md fixes 21 days ago

Vienna Deep Learning Meetup

Overview

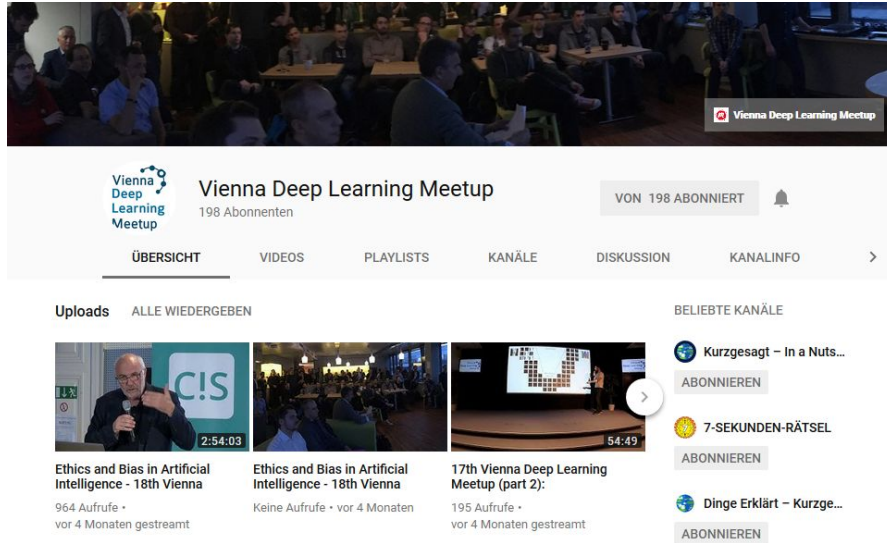
Deep Learning is currently a big & growing trend in data analysis and prediction - and the main fuel of a new era of AI. Google, Facebook and others have shown tremendous success in pushing image, object & speech recognition to the next level.

But Deep Learning can also be used for so many other things! The list of application domains is literally endless.

Although rooted in Neural Network research already in the 1950's, the current trend in Deep Learning is unstoppable, and new approaches and improvements are presented almost every month.

Deep Learning Meetup

VDLM Youtube Channel



The screenshot shows the YouTube channel page for 'Vienna Deep Learning Meetup'. At the top is a banner image of a meetup event with a small logo in the bottom right corner. Below the banner is the channel's profile section, including the logo, name, subscriber count (198), and a notification bell. A horizontal menu contains tabs for 'ÜBERSICHT', 'VIDEOS', 'PLAYLISTS', 'KANÄLE', 'DISKUSSION', and 'KANALINFO'. The 'Videos' section is active, showing three video thumbnails. The first two are titled 'Ethics and Bias in Artificial Intelligence - 18th Vienna' with view counts and upload times. The third is '17th Vienna Deep Learning Meetup (part 2):' with a view count and upload time. To the right, the 'Beliebte Kanäle' (Popular Channels) section lists three other channels with their names and 'ABONNIEREN' (Subscribe) buttons.

Vienna Deep Learning Meetup
198 Abonnenten

VON 198 ABONNIERT

ÜBERSICHT VIDEOS PLAYLISTS KANÄLE DISKUSSION KANALINFO >

Uploads ALLE WIEDERGEHEN

BELIEBTE KANÄLE

Ethics and Bias in Artificial Intelligence - 18th Vienna
2:54:03
964 Aufrufe • vor 4 Monaten gestreamt

Ethics and Bias in Artificial Intelligence - 18th Vienna
Keine Aufrufe • vor 4 Monaten

17th Vienna Deep Learning Meetup (part 2):
54:49
195 Aufrufe • vor 4 Monaten gestreamt

Kurzesagt – In a Nuts...
ABONNIEREN

7-SEKUNDEN-RÄTSEL
ABONNIEREN

Dinge Erklärt – Kurzge...
ABONNIEREN

<https://www.youtube.com/ViennaDeepLearningMeetup>



WeAreDevelopers World Congress

WORLD'S LARGEST DEVELOPERS CONGRESS

CityCube Berlin

6 & 7 June

WeAreDevelopers World Congress Berlin



The legendary “Woodstock for Developers” is coming to Berlin on **June 6th and 7th!**

With **10,000 people**, more than **200 speakers** on various stages, the WeAreDevelopers World Congress 2019 is the largest of its kind. The CityCube at Messe Berlin will host workshops, talks, panel discussions and live coding sessions with top speakers. Deepen your knowledge about topics like **IoT, Blockchain, Gaming, Robotics & AI**. Experience the latest technologies live & network directly with local developers on the largest developer playground!



WeAreDevelopers World Congress Berlin



Winners of free ticket:
Anja Salzer
Michael Machatschek

> > > <https://events.wearedevelopers.com>

See you soon!

WeAreDevelopers World Congress Berlin



Get 25% off with this code:

Vienna_DLM_25

> > > <https://events.wearedevelopers.com>

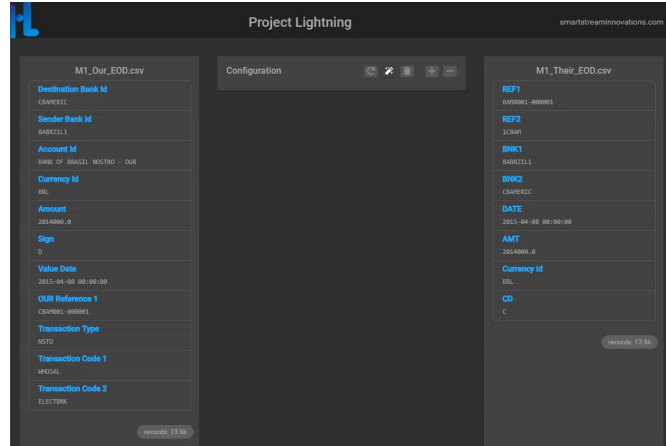
See you soon!



WE ARE HIRING

**MACHINE LEARNING, DEEP LEARNING,
DATA MINING EXPERTS**

Andreas Burner, Chief Innovation Officer



SmartStream Technologies, Global

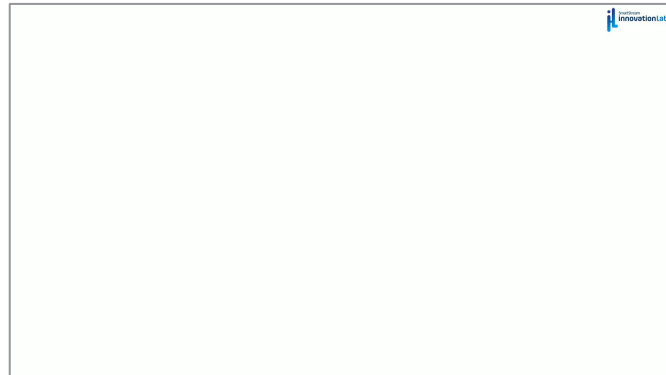
- **Leading software vendor** in the FinTech space
- **>1,500 customers** globally, 70 of the World's top 100 banks
- **FinTech Power 50** - one of worldwide's top 50 FinTechs

Innovation Labs, Vienna

- **Research and prototype ML** for the financial domain

What we do ?

- **Data analysis and visualization**: Jupyter, matplotlib, seaborn, ...
- **Data processing**: tree-based models, linear models, bayesian methods, ...
- **Data monitoring**: echo state networks, CNN, RNN (LSTM, GRU)



About you ...



Data Scientist - Innovation Team

- Machine Learning, Deep Learning (TensorFlow, Keras, scikit-learn, PyMC, spaCy, NLTK, etc.)
- Python stack (SciPy, NumPy, Pandas, etc.)
- BS, MS or PhD in Computer Science or a related field

Senior Developer - Innovation Product Engineering Team

- Backend: Python (Flask, Werkzeug, NumPy, Pandas), Docker, Kubernetes, Cloud (AWS, etc.)
- Frontend: HTML5, Angular, TypeScript, Sass, Node

Team player, curious, can-do attitude

INTERESTED ?

hr@smartstream-stp.com

Hot Topics & Latest News

a short block at every meetup
to briefly present recent papers and news in Deep Learning

Send us contributions (tom.lidy@gmail.com)
or come with slides to do a short block yourself!

Deep Reinforcement Learning Book

Book Recommendation:

Introduction to Deep Reinforcement Learning

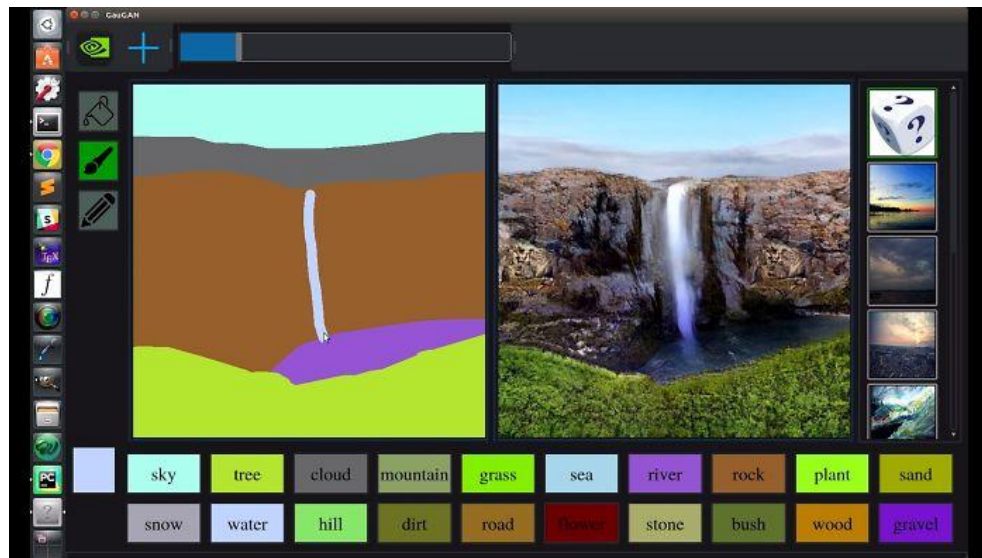
<https://arxiv.org/abs/1811.12560>

NVidia “GauGAN” Doodle Transformer

GANs (Generative Adversarial Networks) to
convert segmentation maps into photo-realistic images



SPADE: Semantic Image Synthesis with Spatially-Adaptive Normalization



SPADE: Semantic Image Synthesis with Spatially-Adaptive Normalization

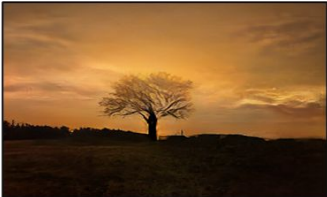
cloud	sky
tree	mountain
sea	grass



Semantic Manipulation Using Segmentation Map

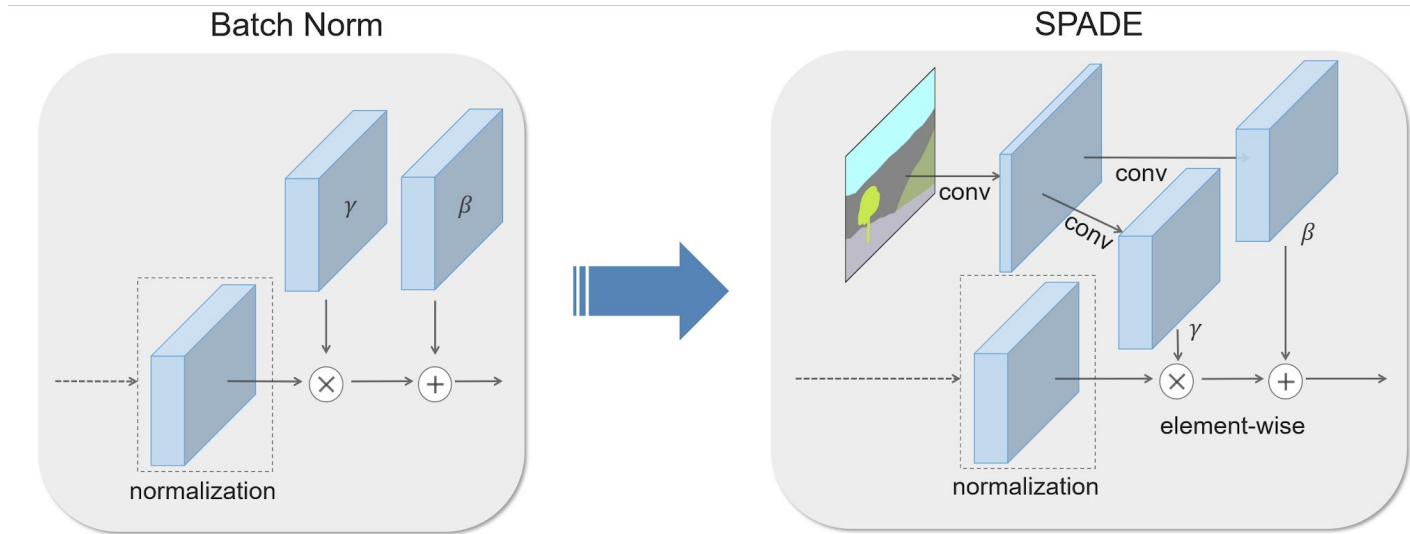


Stylization using Guide Images



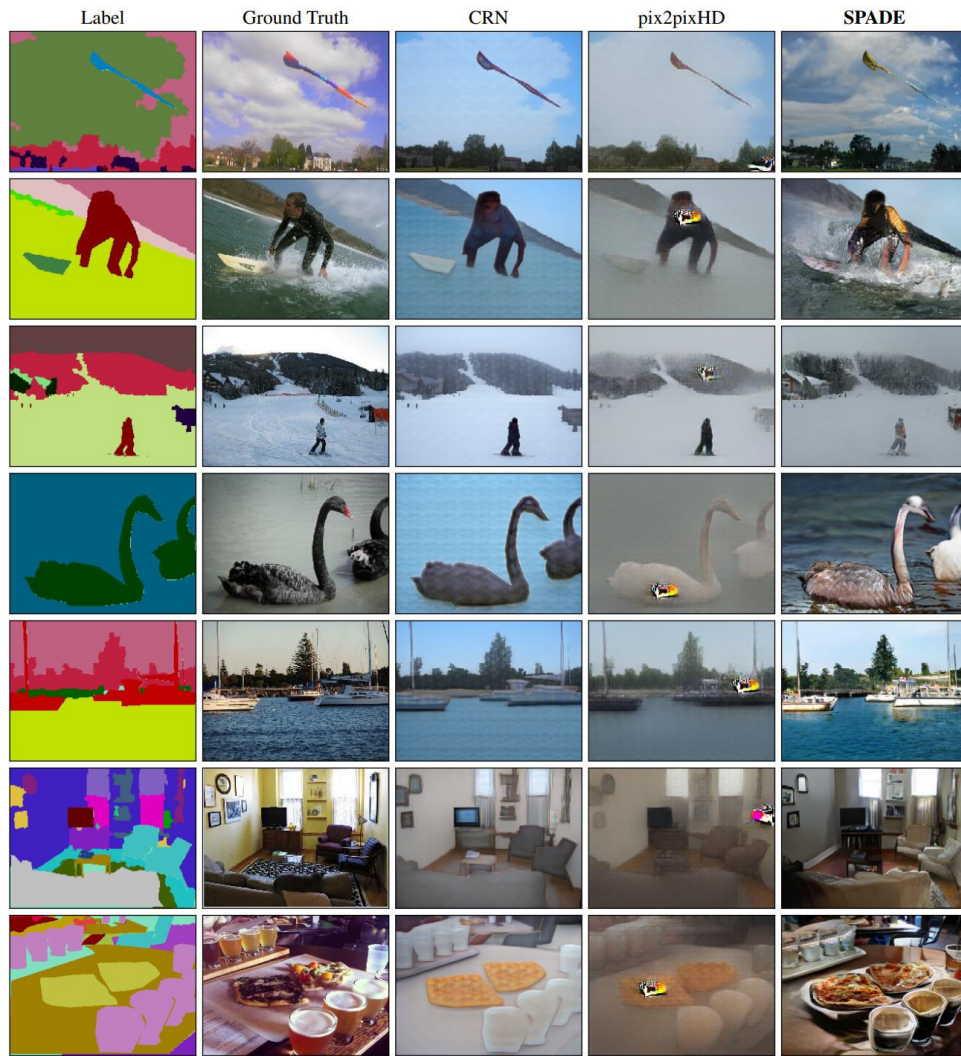


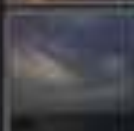
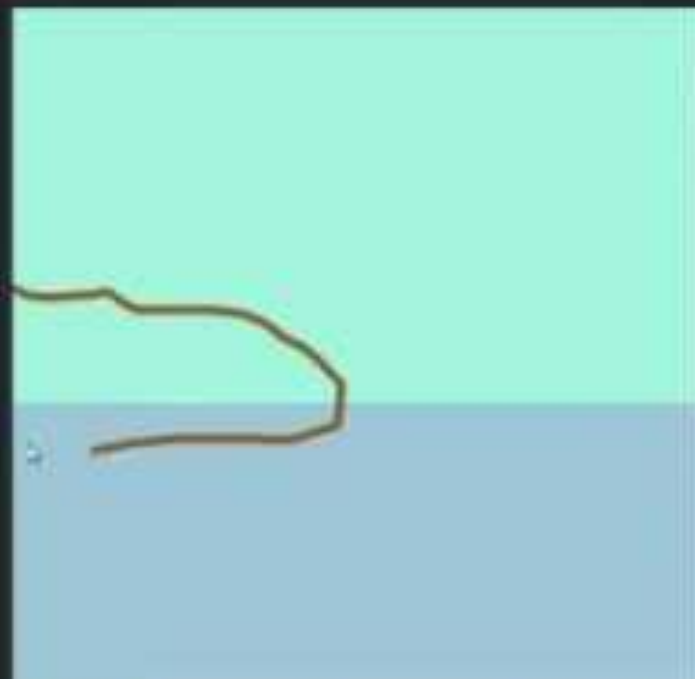
SPADE: Semantic Image Synthesis with Spatially-Adaptive Normalization



- Previous methods: segmentation map went through all layers
- Problem: normalization removes semantic information
- Proposed: use input layout for modulating the activations in normalization layers through a spatially-adaptive, learned transformation

SPADE Examples:





sky

tree

cloud

mountain

grass

sea

river

rock

plant

sand

snow

water

hill

dirt

road

stone

stone

bush

wood

gravel

SPADE / GauGAN

Blog Articles:

<https://blogs.nvidia.com/blog/2019/03/18/gaugan-photorealistic-landscapes-nvidia-research/>

<https://www.boredpanda.com/nvidia-ai-creates-photorealistic-landscape-from-doodle/>

Paper:

Semantic Image Synthesis with Spatially-Adaptive Normalization

Taesung Park, Ming-Yu Liu, Ting-Chun Wang, Jun-Yan Zhu

(Submitted on 18 Mar 2019, accepted at CVPR 2019)

<https://arxiv.org/abs/1903.07291>

Source Code:

Semantic Image Synthesis with SPADE

<https://github.com/NVlabs/SPADE>

IBM Project Debater

Harish Natarajan, grand finalist in 2016's World Debating Championships, faced off against IBM's Project Debater. Project Debater (in works since 2012) is designed to come up with coherent, convincing speeches of its own.

Topic of the debate: whether or not preschool should be subsidized (wasn't revealed to the AI system or Natarajan until 15 minutes before)

each side gave a 4-minute opening speech, then they each came up with a 4-minute rebuttal to the other party. At the end, they gave a 2-minute closing argument.

Natarajan won, measured by how many people were convinced

<https://edition.cnn.com/2019/02/11/tech/ai-versus-human-ibm-debate/index.html>

#think2019



Alibaba “FashionAI” and AI-powered smart mirror



Vienna Deep Learning Meetup



Next Meetup:
29 April 2019 @ WKO
“Putting Deep Learning into Production”

www.meetup.com/Vienna-Deep-Learning-Meetup

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B2B PLATFORM APPLIED ARTIFICIAL INTELLIGENCE CONFERENCE

AI is here.
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for your business!

VIENNA

27.05.2019 | 09-20h

