The D ONE Starter Kit for Generative AI

OpenAssistant - How to Crowd-Source From 13'000 People and Make Them Think It's Fun `Keynote`

- Jun 23, 2023, 09:20 - 09:55 GMT+2
- Track 1 - Kongresssaal, Kongresshaus, Zurich

Speakers

Yannic Kilcher

Did Transformer Models Begin Terminator Era? `Talk`

- Jun 23, 2023, 10:25 - 10:50 GMT+2
- Track 2 - Vortragssaal 2, Kongresshaus, Zurich

ChatGPT have reached 100 million users in just a couple of months. The use cases vary – teaching, customer care, scientific research, marketing etc.) At the same time, this is why many questions are posed around responsibility and the usage of such tools for all of us; and, at an even higher level, for those of us involved in building them. First, what innovative measures have been undertaken by Microsoft to build a responsible AI infrastructure. It is connected to a larger enterprise risk management. There are systems for responsible AI. Second – Responsible AI Standard – which helps in identifying and mitigating harms ahead of time, and ensuring that controls are in place. It describes the context of Azure OpenAI: Transparency Notes – which help understand how the whole system; Code of Conduct – which defines the requirements for use of the Azure OpenAI – set of rules for models' training and fine-tuning. Third – Transparency of the logging and human review process. At the end, an example of the demo will be available to the participants afterwards to have tangible busin

Speakers

Tomasz Pelczarski
Data & AI Principal Solution Specialist
Microsoft Schweiz

The D ONE Starter Kit for Generative AI `Sponsored Talk`

- Jun 23, 2023, 10:25 - 10:50 GMT+2
- Track 1 - Kongresssaal, Kongresshaus, Zurich

Generative AI, spearheaded by household names like ChatGPT and DALL-E perform complex tasks with a form of semantic abilities. Many organizations strive to find ways on how to exploit this in an effective and secure way. We show the main building blocks of G-AI and how to generate business value, and explain why this innovation has both a «Business as usual» as well as a «Game Changing» impact. We are convinced that creativity, critical thinking, and good judgment just got a lot more valuable.

Speakers

Philipp Thomann
Managing Consultant
D ONE

Hello Dolly: Democratizing the Magic of ChatGPT With Open Models `Sponsored Talk`

- Jun 23, 2023, 12:10 - 12:20 GMT+2
- Track 2 - Vortragssaal 2, Kongresshaus, Zurich

Curious how your company can benefit from large language models (LLM) like ChatGPT? Imagine if you could train your own model — customized to your specific data to meet your specific needs. Now you can build your own LLM. And Dolly — our new research model — is proof that you can train yours to deliver high-quality results quickly and economically. Some of the most innovative companies are already training and fine-tuning LLM on their own data. And these models are already driving new and exciting customer experiences. We believe models like Dolly will help democratize LLMs, transforming them from something very few companies can afford into a commodity every company can own and customize to improve their products.

Speakers

Jakub Augustin
Solutions Architect
Databricks

From Idea to Deployment in Production in just Three Months: How we built an Award-Winning Personalized Recommendation Engine for Books powered by current Trend Data and GPT-3 `Poster Discussion`

- Jun 23, 2023, 12:40 - 12:55 GMT+2
- Kongressvestibül, Kongresshaus, Zurich

Blinkist is a book summarisation service that helps understand key ideas. We implemented a recommendation engine powered by GPT-3 that improved CTR for marketing campaigns and reduced the editorial workload. Gain insight into a real-world GPT use case and how to take a data prod

Speakers

Manuel Schlegel
Data Consultant
Netlight

Nazli Uzuner
Data Consultant
Netlight

Automated Extraction of IoT Critical Objects From IoT Storylines, Requirements and User Stories via NLP `Poster Discussion`

- Jun 23, 2023, 12:40 - 12:55 GMT+2
- Kongressvestibül, Kongresshaus, Zurich

The first step to design a resilient Internet of Things (IoT) application is to identify IoT critical objects (services, device and resource) in the design phase. However, this step is a time-intensive task, because they are manually identified from storylines, requirements and user stories and have other challenges. In this work, we assessed the usefulness of Named Entity Recognition (NER) models to automatically identify IoT critical objects as a way to make a modelling process faster and less prone to errors. This was performed with the development of five NER models based on five different architectures (Spacy, BERT, Transformers, LSTM-CRF and ELMo) that were trained and tested with a large dataset with 7396 annotated sentences. Our results indicate that all NER models had a significant performance, but BERT had the best one and can be useful to support the time-intensive step of the early stages of the development of resilient IoT systems. Furthermore, these NER models have a high potential to be extended to a framework to automatically extract IoT critical objects from documents (storyline and requirements) and list all possible IoT

Case Study: Natural-Language-Processing (NLP) With Open Data for Drug Repositioning on Glioblastoma Therapy `Talk`

- Jun 23, 2023, 13:55 - 14:20 GMT+2
- Track 3 - Seezimmer 3-4, Kongresshaus, Zurich

The development and discovery of new drugs is a long, costly and risky endeavour with a low success rate. It is a well-known practice to identify new uses for already existing drugs or known active compounds, referred to as "drug repositioning" or "drug repurposing". This case study uses NLP techniques and publicly available data sources to explore their potential in identifying drugs for glioblastoma therapy beyond the obvious choices documented in established databases like DrugBank.

Speakers

Curdin Marxer
Research assistant
DAVIS Center (FHGR)

Transforming Text Documents to Graphs Using Natural Language Processing to Fight Financial Crime `Poster Discussion`

- Jun 23, 2023, 12:40 - 12:55 GMT+2
- Kongressvestibül, Kongresshaus, Zurich

Speakers

Doga Tekin
Member of Technical Staff
Oracle Labs

Brett Ryder

Business as usual
AND
Game changing

The D ONE Starter Kit for Generative AI

The D ONE Starter Kit for Generative AI

Chocolate
Cool Ideas

Magnifying Glass
Look into the soul
of the transformer

Map
Landscape of
Generative AI and
Roadmap for
your Organisation

Booklet
Use Cases and
Showcases

My Businesscard
To talk about your
inspiring questions
and ideas

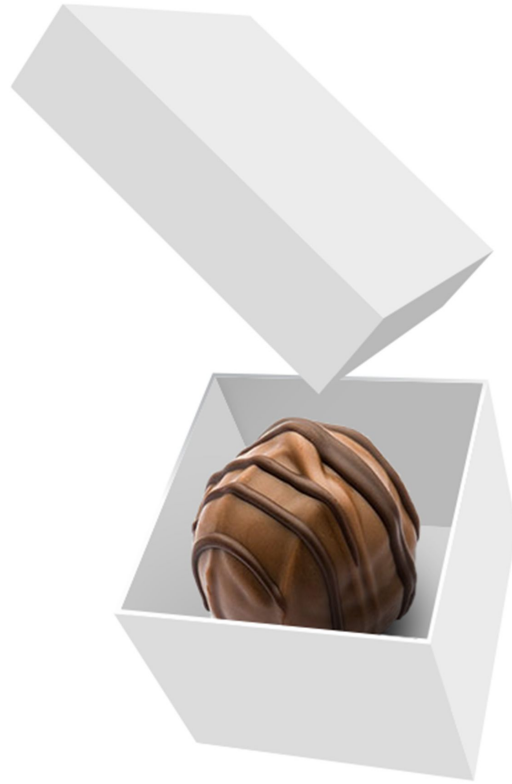**D Academy**
Courses for
you

Chocolate

Image Generation in Data Science?

For the following (Bert-)Topics of Newsgroups clusters:

meat, organic, food, beef, emissions, eat, of, eating, is	the, explosion, atmosphere, eruption, kilometers, of	immune, system, your, cells, my, and, is, the, how, of	moon, earth, lunar, tides, the, water, orbit, base, moons	eu, european, democratic, vote, parliament, union	plastic, plastics, tons, pollution, waste, microplastics, polymers

Which Image denotes which topic cluster?

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Map
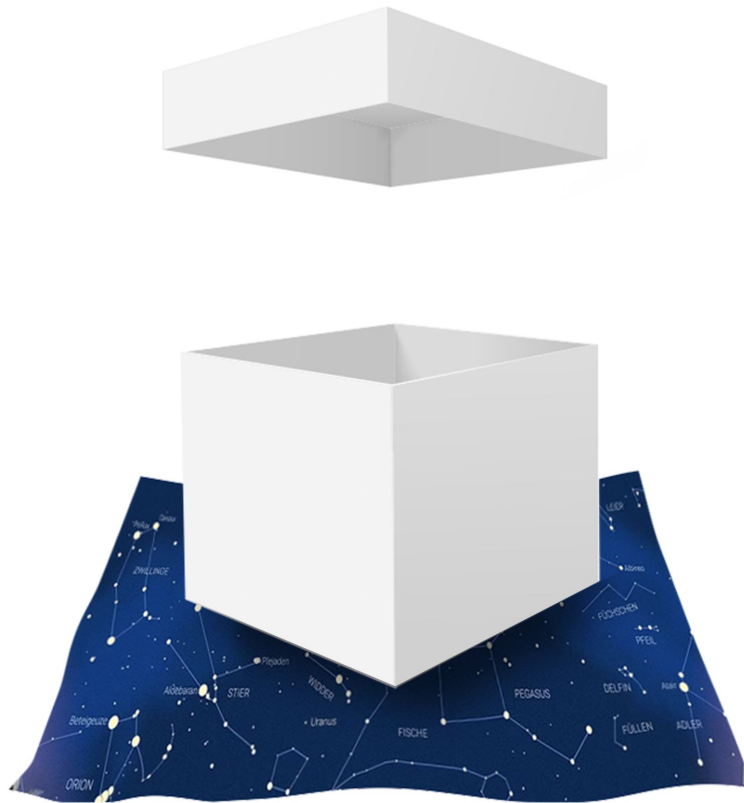
Roadmap for Your Organisation

Booklet

Potential Use Cases

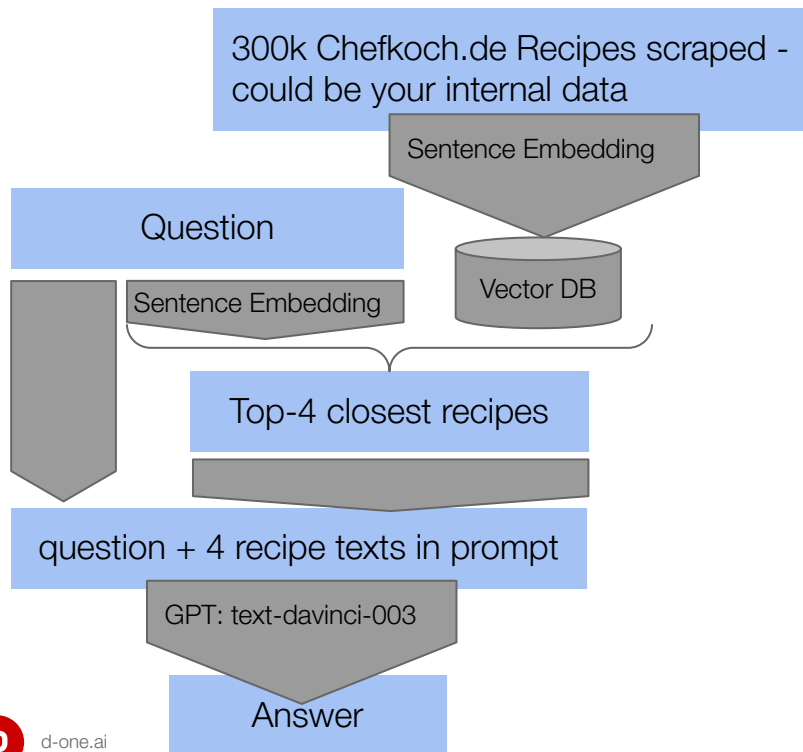**INCREASE SALES**

REDUCE COST

DECREASE RISK

NEW BUSINESS LINES

- Wherever you use NLP today (e.g. summarisation)
- Decision Automation
- Routing (e-mail management)
- Text generation (e.g. for documentation)
- Understanding / reformulating code
- Understanding / reviewing documents (lots of)
- …

Showcase for Question Answering of your Data

300k Chefkoch.de Recipes scraped - could be your internal data

Sentence Embedding

Question

Sentence Embedding

Vector DB

Top-4 closest recipes

question + 4 recipe texts in prompt

GPT: text-davinci-003

Answer

Chatkoch

Using Transformers and OpenAI for 300k Chefkoch Recipes

Enter your search here

Wie koche ich eine Lasagne mit Pilzen?

Submit

Um eine Lasagne mit Pilzen zuzubereiten, brauchst du die folgenden Zutaten: Pilze, Bandnudeln, Hackfleisch, Zwiebeln, Tomatenmark, Fertigmischung, Margarine, Sahne, Käse, Salz, Pfeffer, Mehl und Fondor. Koche zuerst die Bandnudeln und schrecke sie mit kaltem Wasser ab. Brate anschließend das Hackfleisch an und gib die Zwiebeln hinzu. Würze alles mit Pfeffer und Salz und verarbeite es nach

- **Lasagne ohne Platten (Score 76.3%):**

Zuerst die Bandnudeln kochen und mit kaltem Wasser abschrecken. Jetzt das Gehackte a
Bei 175° ca. 20 min. überbacken.
Dazu schmeckt hervorragend ein grüner Salat (z. B.: Eisbergsalat) in Joghurt-Sahne

- **Vegetarische Lasagne (Score 75.6%):**

Zuerst den Ofen auf 200 °C (Ober-/Unterhitze) vorheizen und eine Auflaufform einfett

Einen großen Topf mit gesalzenem Wasser zum Kochen bringen und die Möhren hineingebe

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Magnifying Glass

WE MAKE SENSE.

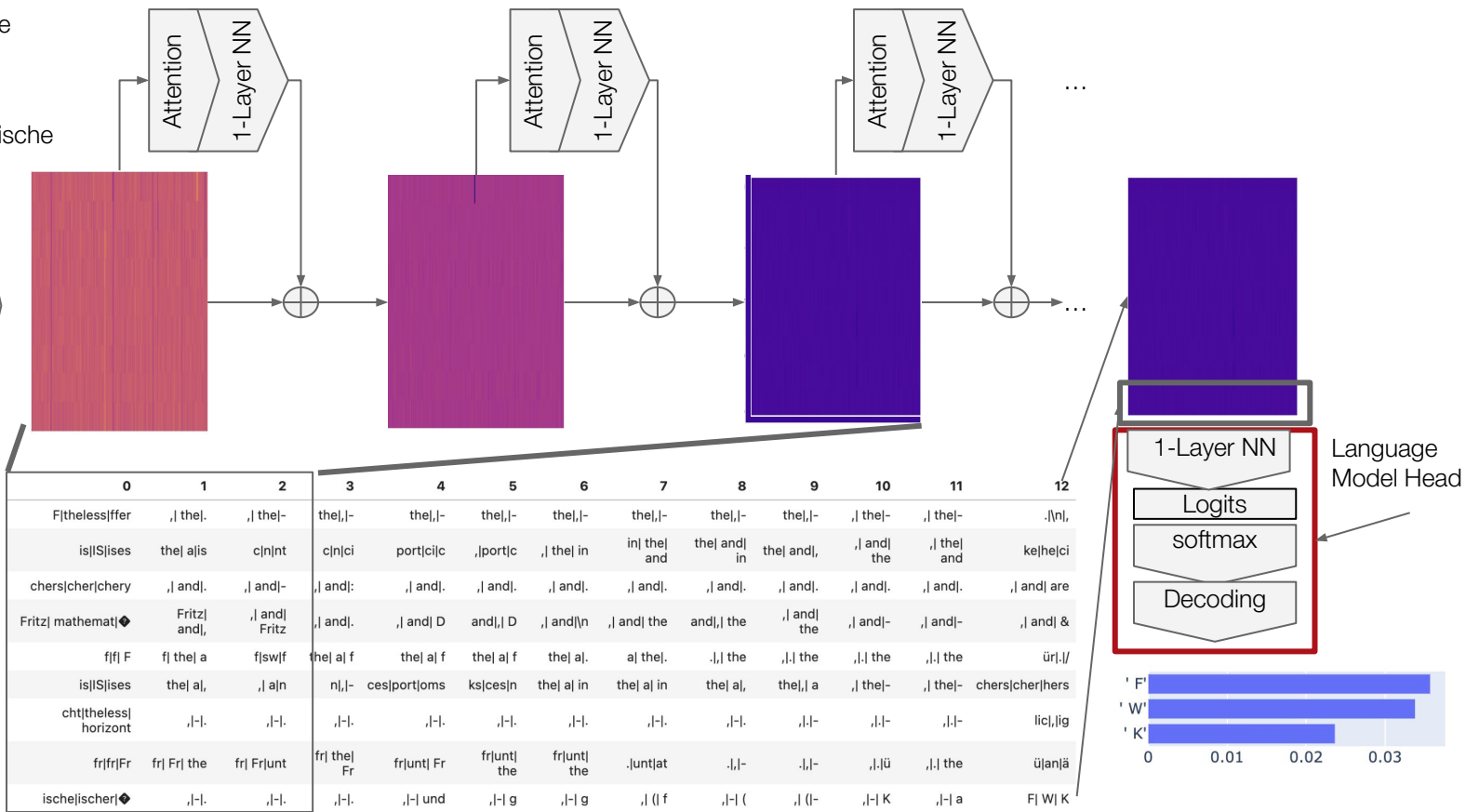# Transformer - Conveyor Belt of Vector Representations

Fischers Fritz fischt frische

Tokenization

F|is|chers| Fritz| f|is|cht| fr|ische

'F'
'is'
'chers'
' Fritz'
' f'
'is'
'cht'
' fr'
'ische'

Vector Embedding + Positional Encoding

Attention | 1-Layer NN

Attention | 1-Layer NN

Attention | 1-Layer NN

…

…

Language Model Head

1-Layer NN

Logits

softmax

Decoding

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D Academy

D Academy

Challenges are growing fast. Grow too.

D Academy stands for world-class trainings. For participants with the ambition to gain the knowledge of a front-runner - field-tested - with a down-to-earth approach - in order to gain the competitive edge in the rapidly evolving world of data.

D Academy - where you go to grow.

Primer in Generative AI for Business

Generative AI is shaping business as much as the internet did. You need to understand it

July 2023, 14-17h

Data Modeling Foundations

From basics to Data Vault - build sustainable and scalable data models

July 2023, 13-16h

Operating with textual data: NLPeasy

Knowledge is primarily available as unstructured text. Learn how to harness it

August 2023, 14-17h

Lakehouse DataOps with Databricks

Productive data is hard. Learn what it takes to master it.

September 2023, 13-17h

AI for Leaders

Data and Analytics are key success factors for every company - learn how to create value from your data

July 2023, 8-11h

Power BI Masterclass

Supercharge your data insights - power data driven decision making

August 2023, 13-17h

Data Mesh

Value creation is a team sport - empower your teams with Data Mesh

August 2023, 13-17h

Data Visualization

Convince your stakeholders with efficient and effective storytelling

August 2023, 13-17h

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My Businesscard

The D ONE Starter Kit for Generative AI

Chocolate
Showcases of
applications

Magnifying Glass
Look into the soul
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starterkit.d-one.ai

Let's Generate!

Philipp Thomann
philipp.thomann@d-one.ai

D ONE
Sihlfeldstrasse 58
CH-8003 Zürich