

AI Fundamentals: Empowering Non-Profits

by Niclas Bjuväng



About Me



Software Engineering

I have a background in software software engineering and leadership at companies like Sony Sony Mobile, IKEA Group, and The The StepStone Group.



Technology Leader

As a tech professional with a track track record spanning back to 2006, I've spent the last five years years driving innovation and leading organizations in the exciting fields of emerging technologies and AI.



Family Life

I live with my wife, two kids, and and our dog in Vellinge.

What is Artificial Intelligence?



Intelligent Machines

Artificial Intelligence (AI) is the field of computer science that aims to create machines capable of performing tasks typically requiring human intelligence, such as visual perception, language understanding, decision-making, and problem-solving.



Learning from Data

AI involves developing algorithms and statistical models that enable systems to learn from data and make informed decisions. Techniques like machine learning, deep learning, and natural language processing allow AI to recognize patterns, make predictions, and automate various tasks.

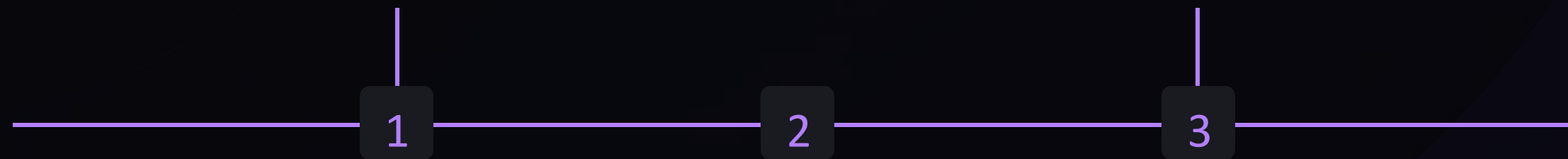
A Brief History of AI

1950s

The term "Artificial Intelligence" was first used. Early pioneers like Alan Turing began developing the foundations of modern AI.

Today

AI is transforming industries like healthcare, finance, and entertainment. AI can now understand language and visuals, and has great potential to help non-profit organizations achieve their goals.



1980s-1990s

Important breakthroughs happened, including including the rise of expert systems and the first first steps towards deep learning technology. technology.

Key AI Concepts



Machine Learning Learning

Allows computers to learn and make decisions without explicit programming.



Natural Language Processing

Enables computers to understand and generate human language, like translation and chatbots.



Computer Vision

Helps machines identify and process images and videos, used in facial recognition and self-driving cars.



Deep Learning

A powerful AI technique that has driven breakthroughs in areas like image recognition and language understanding.

Types of AI



Narrow AI

Designed to perform a specific task, such as facial recognition or internet searches. Examples include Siri, Alexa, and recommendation systems. In fact, ChatGPT etc is included here.



General AI

A form of AI that can understand, learn, and apply knowledge in a way that is indistinguishable from human intelligence. This type is still largely theoretical. Commonly referred to as AGI.

AI Training and Data Sources

1

- AI systems are trained on vast **datasets** of information, often gathered from the internet, sensors, and other sources
- This **training data** allows the AI to learn patterns, associations, and relationships that enable it to perform tasks
- The quality and diversity of the training data is crucial - high-quality, representative data leads to data leads to more capable and unbiased AI
- Ethical considerations around data privacy and consent are important as AI systems become more advanced and pervasive

Examples of datasets

The CommonCrawl Foundation - 250 billion web pages.

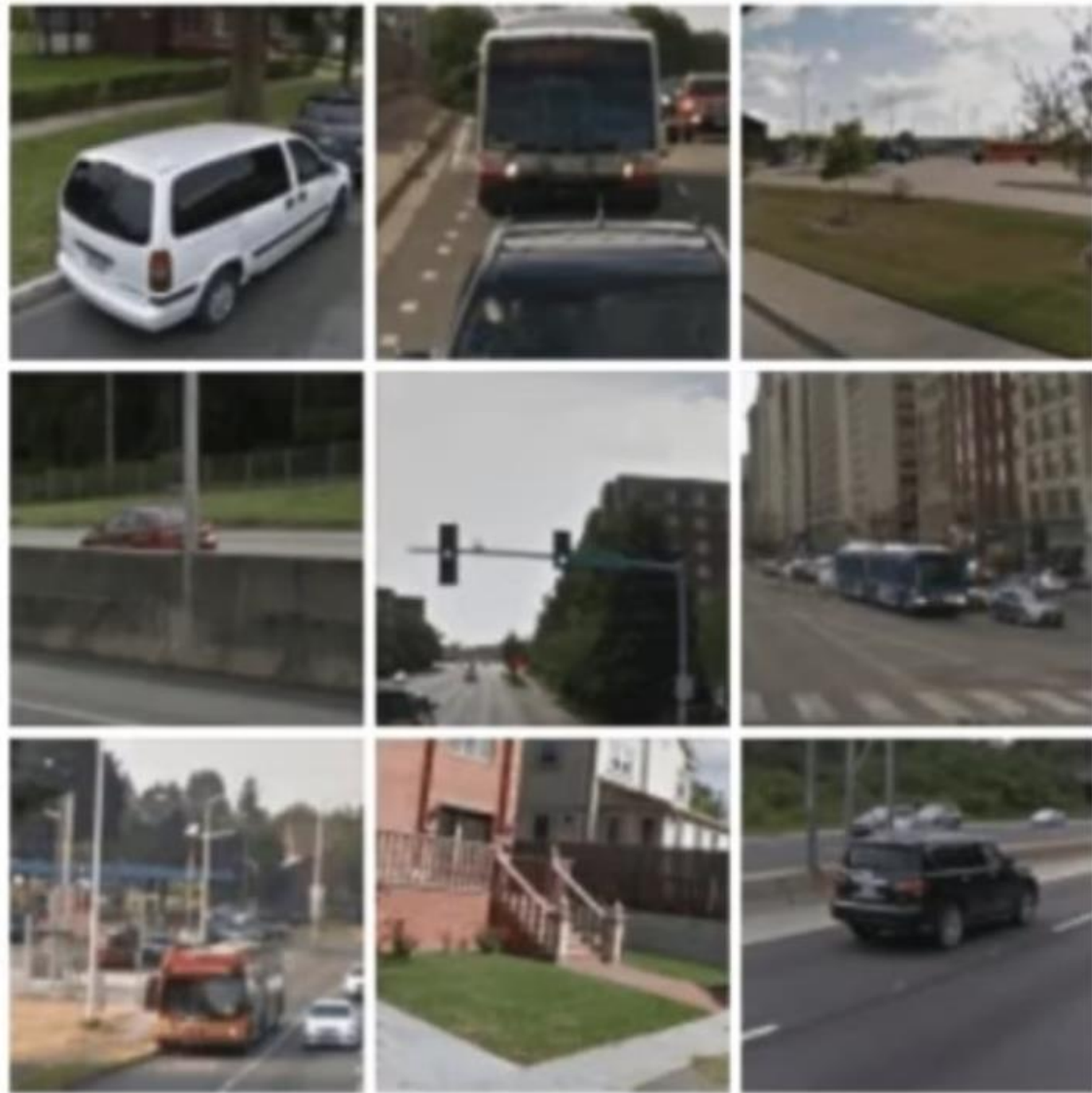
Your content.



Select all images with a

bus

Click verify once there are none left.



Captchas for Image Classification

CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart) has been repurposed as a powerful tool for image classification and annotation. By presenting users with various visual puzzles, CAPTCHA systems collect labeled image data that can be used to train machine learning models.



VERIFY

AI for Content Creation

1 Automated Generation

AI can generate social media posts, blog posts, blog articles, and other marketing materials, saving time.

2 Personalized Content

Tools like GPT-4 can generate text based based on a few keywords or phrases, phrases, enabling personalized and and relevant content.



Generative AI

Text Generation

AI models like GPT-4 can generate high-quality quality text based on input prompts.

Diverse Applications

Generative AI has a wide range of applications, applications, from content creation to marketing marketing and beyond.

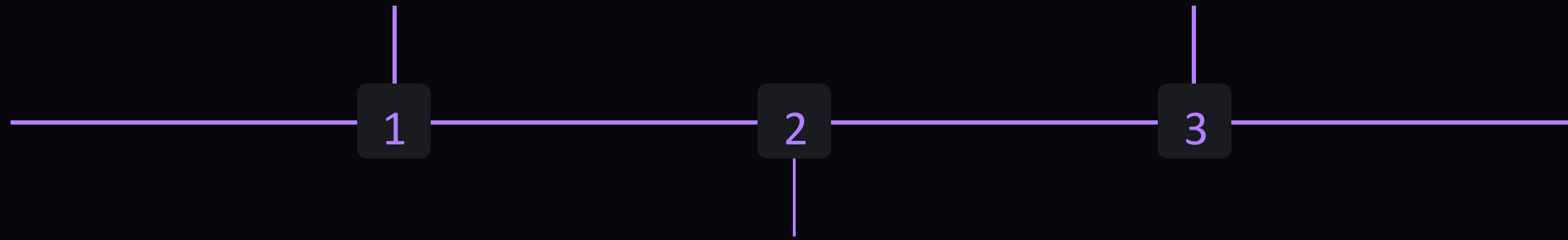


Image Creation

Tools like DALL-E can create unique images from from textual descriptions.

Multi-Modality in AI



What is Multi-Modality? Modality?

AI can leverage information from from diverse sources, such as text text and visuals, to gain a more more comprehensive understanding of a topic.



Why is it Important?

Multi-modality empowers AI to see the bigger picture, **generate content across various formats**, and make meaningful connections between different types of information.



Examples

AI can bridge the gap between between different media formats, formats, creating images from from text or generating text based based on visual inputs, showcasing the power of multi-multi-modality.



AI for Fundraising

Donor Insights

AI can analyze donor data to identify trends and predict donor behavior, enabling personalized outreach and improving donor retention.

Targeted Campaigns

Predictive analytics can segment donors based on their likelihood to donate, allowing for more effective and targeted fundraising campaigns.

Leveraging GPT-4 to Identify Fundraising Opportunities in Malmö, Sweden

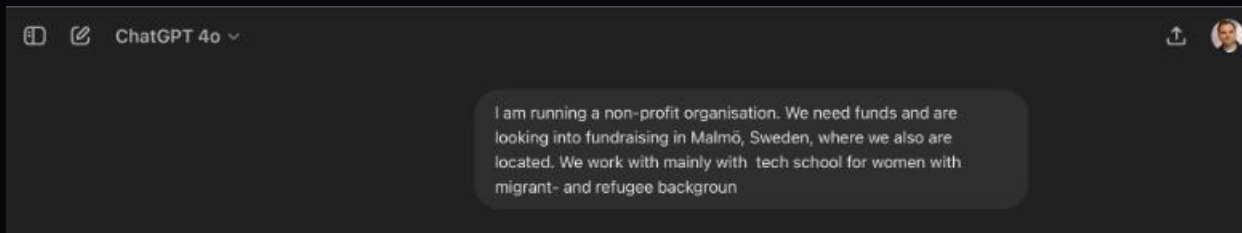
Sweden

Malmö, Sweden is a vibrant city with a thriving nonprofit sector. By leveraging the power of GPT-4, we can identify we can identify local companies and organizations that align with your fundraising goals and may be interested in be interested in supporting your cause.

1

- Use GPT-4 to quickly search for and analyze Malmö-based companies, their financial data, and data, and their history of charitable giving.
- **Prioritize** potential donors based on factors like industry, company size, and past philanthropic philanthropic activities.
- Craft **personalized** outreach campaigns using GPT-4's natural language generation capabilities to increase the likelihood of successful partnerships.

It's demo time!



Explore services used for this presentation

<https://gamma.app> for presentations

<https://pipio.ai> for video with actors and translations



Getting Started with AI

Start Small

1

Implement AI tools for specific tasks before scaling up.

Ensure Privacy

2

Use anonymized data and comply with data protection regulations.

Measure, measure, measure!

3

Is your AI content able to perform as well as your "human" content?

That's it for me!

<https://www.bjuvang.com>