

Title: OpenAI o4-mini

URL: https://en.wikipedia.org/wiki/OpenAI_o4-mini

PageID: 79727847

Categories: Category:2025 in artificial intelligence, Category:2025 software, Category:ChatGPT, Category:Generative pre-trained transformers, Category:Large language models, Category:Natural language processing stubs, Category:OpenAI

Source: Wikipedia (CC BY-SA 4.0).

OpenAI o4-mini is a generative pre-trained transformer model created by OpenAI . On April 16, 2025, the o4-mini model was released to all ChatGPT users (including free-tier users) as well as via the Chat Completions API and Responses API. [1] [2] [3] [4]

Additionally, OpenAI introduced the o4-mini-high model, which was made available exclusively to paid-tier ChatGPT users. The high model offers more advanced features, including higher response accuracy and faster processing times. [5]

Unlike earlier models, o4-mini is capable of processing both text and images. It also allows to perform tasks like analyzing whiteboard sketches during its "chain-of-thought" phase. [6]

o4-mini API providers says that it's designed to enhance decision-making across sectors by enabling utilities to forecast demand and analyze infrastructure data, supporting healthcare through extraction and interpretation of medical records and diagnostics, and assisting financial institutions with real-time regulatory compliance and risk assessment through automated document analysis and data processing. [7] A study shows that the o4-mini model has significantly improved its ability to complete tasks in the field of chemistry compared to the GPT-3 model, but there is still a gap compared to other models (Such as Deepseek-R1 model). [8]

See also

List of large language models

References

External links

Introducing OpenAI o3 and o4-mini

OpenAI o3 and o4-mini System Card

v

t

e

ChatGPT in education GPT Store DALL-E ChatGPT Search Sora Whisper

in education

GPT Store

DALL-E

ChatGPT Search

Sora

Whisper

GitHub Copilot

OpenAI Codex

Generative pre-trained transformer GPT-1 GPT-2 GPT-3 GPT-4 GPT-4o o1 o3 GPT-4.5 GPT-4.1
o4-mini GPT-OSS GPT-5

GPT-1

GPT-2

GPT-3

GPT-4

GPT-4o

o1

o3

GPT-4.5

GPT-4.1

o4-mini

GPT-OSS

GPT-5

ChatGPT Deep Research

Operator

Sam Altman removal

removal

Greg Brockman

Sarah Friar

Jakub Pachocki

Scott Schools

Mira Murati

Emmett Shear

Sam Altman

Adam D'Angelo

Sue Desmond-Hellmann

Zico Kolter

Paul Nakasone

Adebayo Ogunlesi

Nicole Seligman

Fidji Simo

Lawrence Summers

Bret Taylor (chair)

Greg Brockman (2017–2023)

Reid Hoffman (2019–2023)

Will Hurd (2021–2023)

Holden Karnofsky (2017–2021)

Elon Musk (2015–2018)
Ilya Sutskever (2017–2023)
Helen Toner (2021–2023)
Shivon Zilis (2019–2023)
Stargate LLC
Apple Intelligence
AI Dungeon
AutoGPT
Contrastive Language-Image Pre-training
" Deep Learning "
LangChain
Microsoft Copilot
OpenAI Five
Transformer
Category
v
t
e
Autoencoder
Deep learning
Fine-tuning
Foundation model
Generative adversarial network
Generative pre-trained transformer
Large language model
Model Context Protocol
Neural network
Prompt engineering
Reinforcement learning from human feedback
Retrieval-augmented generation
Self-supervised learning
Stochastic parrot
Synthetic data
Top-p sampling
Transformer
Variational autoencoder
Vibe coding
Vision transformer

Waluigi effect

Word embedding

Character.ai

ChatGPT

DeepSeek

Ernie

Gemini

Grok

Copilot

Claude

Gemini

Gemma

GPT 1 2 3 J 4 4o 4.5 4.1 OSS 5

1

2

3

J

4

4o

4.5

4.1

OSS

5

Llama

o1

o3

o4-mini

Qwen

Base44

Claude Code

Cursor

Devstral

GitHub Copilot

Kimi-Dev

Qwen3-Coder

Replit

Xcode

Aurora

Firefly
Flux
GPT Image 1
Ideogram
Imagen
Midjourney
Qwen-Image
Recraft
Seedream
Stable Diffusion
Dream Machine
Hailuo AI
Kling
Midjourney Video
Runway Gen
Seedance
Sora
Veo
Wan
15.ai
Eleven
MiniMax Speech 2.5
WaveNet
Eleven Music
Endel
Lyria
Riffusion
Suno AI
Udio
Agentforce
AutoGLM
AutoGPT
ChatGPT Agent
Devin AI
Manus
OpenAI Codex
Operator
Replit Agent

01.AI

Aleph Alpha

Anthropic

Baichuan

Canva

Cognition AI

Cohere

Contextual AI

DeepSeek

ElevenLabs

Google DeepMind

HeyGen

Hugging Face

Inflection AI

Krikey AI

Kuaishou

Luma Labs

Meta AI

MiniMax

Mistral AI

Moonshot AI

OpenAI

Perplexity AI

Runway

Safe Superintelligence

Salesforce

Scale AI

SoundHound

Stability AI

Synthesia

Thinking Machines Lab

Upstage

xAI

Z.ai

Category

v

t

e

History timeline
timeline
Companies
Projects
Parameter Hyperparameter
Hyperparameter
Loss functions
Regression Bias–variance tradeoff Double descent Overfitting
Bias–variance tradeoff
Double descent
Overfitting
Clustering
Gradient descent SGD Quasi-Newton method Conjugate gradient method
SGD
Quasi-Newton method
Conjugate gradient method
Backpropagation
Attention
Convolution
Normalization Batchnorm
Batchnorm
Activation Softmax Sigmoid Rectifier
Softmax
Sigmoid
Rectifier
Gating
Weight initialization
Regularization
Datasets Augmentation
Augmentation
Prompt engineering
Reinforcement learning Q-learning SARSA Imitation Policy gradient
Q-learning
SARSA
Imitation
Policy gradient
Diffusion
Latent diffusion model

Autoregression
Adversary
RAG
Uncanny valley
RLHF
Self-supervised learning
Reflection
Recursive self-improvement
Hallucination
Word embedding
Vibe coding
Machine learning In-context learning
In-context learning
Artificial neural network Deep learning
Deep learning
Language model Large language model NMT
Large language model
NMT
Reasoning language model
Model Context Protocol
Intelligent agent
Artificial human companion
Humanity's Last Exam
Artificial general intelligence (AGI)
AlexNet
WaveNet
Human image synthesis
HWR
OCR
Computer vision
Speech synthesis 15.ai ElevenLabs
15.ai
ElevenLabs
Speech recognition Whisper
Whisper
Facial recognition
AlphaFold

Text-to-image models Aurora DALL-E Firefly Flux Ideogram Imagen Midjourney Recraft Stable Diffusion

Aurora

DALL-E

Firefly

Flux

Ideogram

Imagen

Midjourney

Recraft

Stable Diffusion

Text-to-video models Dream Machine Runway Gen Hailuo AI Kling Sora Veo

Dream Machine

Runway Gen

Hailuo AI

Kling

Sora

Veo

Music generation Riffusion Suno AI Udio

Riffusion

Suno AI

Udio

Word2vec

Seq2seq

GloVe

BERT

T5

Llama

Chinchilla AI

PaLM

GPT 1 2 3 J ChatGPT 4 4o o1 o3 4.5 4.1 o4-mini 5

1

2

3

J

ChatGPT

4

4o

o1

o3

4.5

4.1

o4-mini

5

Claude

Gemini Gemini (language model) Gemma

Gemini (language model)

Gemma

Grok

LaMDA

BLOOM

DBRX

Project Debater

IBM Watson

IBM Watsonx

Granite

PanGu- Σ

DeepSeek

Qwen

AlphaGo

AlphaZero

OpenAI Five

Self-driving car

MuZero

Action selection AutoGPT

AutoGPT

Robot control

Alan Turing

Warren Sturgis McCulloch

Walter Pitts

John von Neumann

Claude Shannon

Shun'ichi Amari

Kunihiko Fukushima

Takeo Kanade

Marvin Minsky

John McCarthy
Nathaniel Rochester
Allen Newell
Cliff Shaw
Herbert A. Simon
Oliver Selfridge
Frank Rosenblatt
Bernard Widrow
Joseph Weizenbaum
Seymour Papert
Seppo Linnainmaa
Paul Werbos
Geoffrey Hinton
John Hopfield
Jürgen Schmidhuber
Yann LeCun
Yoshua Bengio
Lotfi A. Zadeh
Stephen Grossberg
Alex Graves
James Goodnight
Andrew Ng
Fei-Fei Li
Alex Krizhevsky
Ilya Sutskever
Oriol Vinyals
Quoc V. Le
Ian Goodfellow
Demis Hassabis
David Silver
Andrej Karpathy
Ashish Vaswani
Noam Shazeer
Aidan Gomez
John Schulman
Mustafa Suleyman
Jan Leike
Daniel Kokotajlo

François Chollet

Neural Turing machine

Differentiable neural computer

Transformer Vision transformer (ViT)

Vision transformer (ViT)

Recurrent neural network (RNN)

Long short-term memory (LSTM)

Gated recurrent unit (GRU)

Echo state network

Multilayer perceptron (MLP)

Convolutional neural network (CNN)

Residual neural network (RNN)

Highway network

Mamba

Autoencoder

Variational autoencoder (VAE)

Generative adversarial network (GAN)

Graph neural network (GNN)

Category

This large language model -related article is a stub . You can help Wikipedia by expanding it .

v

t

e