人工智能相关术语 **·** 中英文对照表

| 缩写 | 英语 | 汉语 |
| --- | --- | --- |
|  | **A** |  |
|  | Activation Function | 激活函数 |
|  | Adversarial Networks | 对抗网络 |
|  | Affine Layer | 仿射层 |
|  | agent | 代理/智能体 |
|  | algorithm | 算法 |
|  | alpha-beta pruning | α-β剪枝 |
|  | anomaly detection | 异常检测 |
|  | approximation | 近似 |
| AGI | Artificial General Intelligence | 通用人工智能 |
| AI | Artificial Intelligence | 人工智能 |
|  | association analysis | 关联分析 |
|  | attention mechanism | 注意机制 |
|  | autoencoder | 自编码器 |
| ASR | automatic speech recognition | 自动语音识别 |
|  | automatic summarization | 自动摘要 |
|  | average gradient | 平均梯度 |
|  | Average-Pooling | 平均池化 |
|  | **B** |  |
| BP | backpropagation | 反向传播 |
| BPTT | Backpropagation Through Time | 通过时间的反向传播 |
| BN | Batch Normalization | 分批标准化 |
|  | Bayesian network | 贝叶斯网络 |
|  | Bias-Variance Dilemma | 偏差/方差困境 |
| Bi-LSTM | Bi-directional Long-Short Term Memory | 双向长短期记忆 |
|  | bias | 偏置/偏差 |
|  | big data | 大数据 |
|  | Boltzmann machine | 玻尔兹曼机 |
|  | **C** |  |
| CPU | Central Processing Unit | 中央处理器 |
|  | chunk | 词块 |
|  | clustering | 聚类 |
|  | cluster analysis | 聚类分析 |
|  | co-adapting | 共适应 |
|  | co-occurrence | 共现 |
|  | Computation Cost | 计算成本 |
|  | Computational Linguistics | 计算语言学 |
|  | computer vision | 计算机视觉 |
|  | concept drift | 概念漂移 |
| CRF | conditional random field | 条件随机域/场 |
|  | convergence | 收敛 |
| CA | conversational agent | 会话代理 |
|  | convexity | 凸性 |
| CNN | convolutional neural network | 卷积神经网络 |
|  | Cost Function | 成本函数 |
|  | cross entropy | 交叉熵 |
|  | **D** |  |
|  | Decision Boundary | 决策边界 |
|  | Decision Trees | 决策树 |
| DBN | Deep Belief Network | 深度信念网络 |
| DCGAN | Deep Convolutional Generative Adversarial Network | 深度卷积生成对抗网络 |
| DL | deep learning | 深度学习 |
| DNN | deep neural network | 深度神经网络 |
|  | Deep Q-Learning | 深度Q学习 |
| DQN | Deep Q-Network | 深度Q网络 |
| [DNC](http://www.nature.com/nature/journal/v538/n7626/full/nature20101.html) | differentiable neural computer | 可微分神经计算机 |
|  | dimensionality reduction algorithm | 降维算法 |
|  | discriminative model | 判别模型 |
|  | discriminator | 判别器 |
|  | divergence | 散度 |
|  | domain adaption | 领域自适应 |
|  | Dropout |  |
|  | Dynamic Fusion | 动态融合 |
|  | **E** |  |
|  | Embedding | 嵌入 |
|  | emotional analysis | 情绪分析 |
|  | End-to-End | 端到端 |
| EM | Expectation-Maximization | 期望最大化 |
|  | Exploding Gradient Problem | 梯度爆炸问题 |
| [ELM](http://axon.cs.byu.edu/~martinez/classes/678/Presentations/Yao.pdf) | Extreme Learning Machine | 超限学习机 |
|  | **F** |  |
| [FAIR](https://research.facebook.com/ai) | Facebook Artificial Intelligence Research | Facebook人工智能研究所 |
|  | factorization | 因子分解 |
|  | feature engineering | 特征工程 |
|  | Featured Learning | 特征学习 |
|  | Feedforward Neural Networks | 前馈神经网络 |
|  | **G** |  |
|  | game theory | 博弈论 |
| GMM | Gaussian Mixture Model | 高斯混合模型 |
| GA | Genetic Algorithm | 遗传算法 |
|  | Generalization | 泛化 |
| [GAN](https://arxiv.org/abs/1406.2661) | Generative Adversarial Networks | 生成对抗网络 |
|  | Generative Model | 生成模型 |
|  | Generator | 生成器 |
|  | Global Optimization | 全局优化 |
| [GNMT](https://arxiv.org/abs/1609.08144) | Google Neural Machine Translation | 谷歌神经机器翻译 |
|  | Gradient Descent | 梯度下降 |
|  | graph theory | 图论 |
| GPU | graphics processing unit | 图形处理单元/图形处理器 |
|  | **H** |  |
| HDM | hidden dynamic model | 隐动态模型 |
|  | hidden layer | 隐藏层 |
| HMM | Hidden Markov Model | 隐马尔可夫模型 |
|  | hybrid computing | 混合计算 |
|  | hyperparameter | 超参数 |
|  | **I** |  |
| ICA | Independent Component Analysis | 独立成分分析 |
|  | input | 输入 |
| [ICML](http://icml.cc/) | International Conference for Machine Learning | 国际机器学习大会 |
|  | language phenomena | 语言现象 |
|  | latent dirichlet allocation | 隐含狄利克雷分布 |
|  | **J** |  |
| JSD | Jensen-Shannon Divergence | JS距离 |
|  | **K** |  |
|  | K-Means Clustering | K-均值聚类 |
| K-NN | K-Nearest Neighbours Algorithm | K-最近邻算法 |
|  | Knowledge Representation | 知识表征 |
| KB | knowledge base | 知识库 |
|  | **L** |  |
|  | Latent Dirichlet Allocation | 隐狄利克雷分布 |
| LSA | latent semantic analysis | 潜在语义分析 |
|  | learner | 学习器 |
|  | Linear Regression | 线性回归 |
|  | log likelihood | 对数似然 |
|  | Logistic Regression | Logistic回归 |
| [LSTM](http://deeplearning.cs.cmu.edu/pdfs/Hochreiter97_lstm.pdf) | Long-Short Term Memory | 长短期记忆 |
|  | loss | 损失 |
|  | **M** |  |
| MT | machine translation | 机器翻译 |
|  | Max-Pooling | 最大池化 |
|  | Maximum Likelihood | 最大似然 |
|  | minimax game | 最小最大博弈 |
|  | Momentum | 动量 |
| MLP | Multilayer Perceptron | 多层感知器 |
|  | multi-document summarization | 多文档摘要 |
| MLP | multi layered perceptron | 多层感知器 |
|  | multimodal learning | 多模态学习 |
|  | multiple linear regression | 多元线性回归 |
|  | **N** |  |
|  | Naive Bayes Classifier | 朴素贝叶斯分类器 |
|  | named entity recognition | 命名实体识别 |
|  | Nash equilibrium | 纳什均衡 |
| NLG | natural language generation | 自然语言生成 |
| NLP | natural language processing | 自然语言处理 |
| NLL | Negative Log Likelihood | 负对数似然 |
| NMT | Neural Machine Translation | 神经机器翻译 |
| NTM | Neural Turing Machine | 神经图灵机 |
| NCE | noise-contrastive estimation | 噪音对比估计 |
|  | non-convex optimization | 非凸优化 |
|  | non-negative matrix factorization | 非负矩阵分解 |
|  | Non-Saturating Game | 非饱和博弈 |
|  | **O** |  |
|  | objective function | 目标函数 |
|  | Off-Policy | 离策略 |
|  | On-Policy | 在策略 |
|  | one shot learning | 一次性学习 |
|  | output | 输出 |
|  | **P** |  |
|  | Parameter | 参数 |
|  | parse tree | 解析树 |
|  | part-of-speech tagging | 词性标注 |
| PSO | Particle Swarm Optimization | 粒子群优化算法 |
|  | perceptron | 感知器 |
|  | polarity detection | 极性检测 |
|  | pooling | 池化 |
| [PPGN](https://arxiv.org/abs/1612.00005) | Plug and Play Generative Network | 即插即用生成网络 |
| PCA | principal component analysis | 主成分分析 |
|  | Probability Graphical Model | 概率图模型 |
|  | **Q** |  |
| [QNN](https://arxiv.org/abs/1609.07061) | Quantized Neural Network | 量子化神经网络 |
|  | quantum computer | 量子计算机 |
|  | Quantum Computing | 量子计算 |
|  | **R** |  |
| RBF | Radial Basis Function | 径向基函数 |
|  | Random Forest Algorithm | 随机森林算法 |
| ReLU | Rectified Linear Unit | 线性修正单元/线性修正函数 |
| RNN | Recurrent Neural Network | 循环神经网络 |
|  | recursive neural network | 递归神经网络 |
| RL | reinforcement learning | 强化学习 |
|  | representation | 表征 |
|  | representation learning | 表征学习 |
|  | Residual Mapping | 残差映射 |
|  | Residual Network | 残差网络 |
| RBM | Restricted Boltzmann Machine | 受限玻尔兹曼机 |
|  | Robot | 机器人 |
|  | Robustness | 稳健性 |
| RE | Rule Engine | 规则引擎 |
|  | **S** |  |
|  | saddle point | 鞍点 |
|  | Self-Driving | 自动驾驶 |
| SOM | self organised map | 自组织映射 |
|  | Semi-Supervised Learning | 半监督学习 |
|  | sentiment analysis | 情感分析 |
| SLAM | simultaneous localization and mapping | 同步定位与地图构建 |
| SVD | Singular Value Decomposition | 奇异值分解 |
|  | Spectral Clustering | 谱聚类 |
|  | Speech Recognition | 语音识别 |
| SGD | stochastic gradient descent | 随机梯度下降 |
|  | supervised learning | 监督学习 |
| SVM | Support Vector Machine | 支持向量机 |
|  | synset | 同义词集 |
|  | **T** |  |
| t-SNE | T-Distribution Stochastic Neighbour Embedding | T-分布随机近邻嵌入 |
|  | tensor | 张量 |
| TPU | Tensor Processing Units | 张量处理单元 |
|  | the least square method | 最小二乘法 |
|  | Threshold | 阙值 |
|  | Time Step | 时间步骤 |
|  | tokenization | 标记化 |
|  | treebank | 树库 |
|  | transfer learning | 迁移学习 |
|  | Turing Machine | 图灵机 |
|  | **U** |  |
|  | unsupervised learning | 无监督学习 |
|  | **V** |  |
|  | Vanishing Gradient Problem | 梯度消失问题 |
| VC Theory | Vapnik–Chervonenkis theory | 万普尼克-泽范兰杰斯理论 |
|  | von Neumann architecture | 冯·诺伊曼架构/结构 |
|  | **W** |  |
| [WGAN](https://arxiv.org/abs/1701.07875) | Wasserstein GAN |  |
| W | weight | 权重 |
|  | word embedding | 词嵌入 |
| WSD | word sense disambiguation | 词义消歧 |
|  | **X** |  |
|  | **Y** |  |
|  | **Z** |  |
| ZSL | zero-shot learning | 零次学习 |
|  | zero-data learning | 零数据学习 |