

中国/香港股票研究

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马可数字科技 (01942.HK)

人工智能模型首选股

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人工智能EquityAlpha模型将马可数字科技（股票代码：01942.HK）选为高潜力股。该公司具备高增长、高回报股票的基本特征，包括大趋势、并购活动井喷以及高质量股东和客户。根据模型预测，该股的估值价格区间预计在港币240至310之间，设定目标价为港币275，位于预测区间的中间位置。

人工智能选股模型在前端运用了逻辑回归模型、随机森林模型和神经网络模型处理数以Tb记的股票数据。在后端运用了自行研发的类 ChatGPT的生成式模型对选股结果进行解释。

在基本上，模型将马可数字科技对标蚂蚁金服，主要基于两者在基本面方面的高相似度。相似的主要特征指标包括：高成长行业、颠覆性行业、十亿数量级用户、与国企央企合作、具有丰富经验的管理层、保险科技、区块链技术、国开行、人保集团。

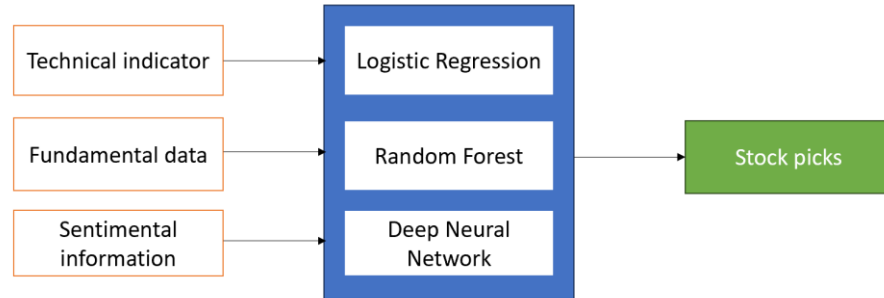
在估值方面，模型将马可数字科技对标并购活动出现井喷的高科技公司，包括阿里巴巴与腾讯控股。根据阿里巴巴与腾讯控股以及许多科技公司在出现并购活动井喷后的股票表现，模型预测公司股票回报率在出现并购活动井喷后将达730%至970%之间。由此得出目标估值在240港币与310港币之间。

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EquityAlpha 模型简介

人工智能选股模型（EquityAlpha）每天对每只股票超过10,000个特征进行分析，其中有超过6,000个技术指标、1,500个基本面指标和1,500个情绪指标。AI模型通过过去35年的数以Tb记的数据进行训练，以识别在接下来的250个交易日中产生最高阿尔法的股票特征(包含定量和定性)。模型再将这些阿尔法信号与数百个决策树结合使用，估算股票跑赢大市的概率。



模型的决策树是由三个主要的人工智能模型组合而成，分别是逻辑回归（LR）模型、随机森林（RF）模型和深度神经网络（DNN）模型。

逻辑回归是一种经典的统计学习算法，它通过逻辑函数建模给定特征向量时正样本的条件概率。因为不容易出现过拟合的问题，逻辑回归在金融行业的机器学习中广泛应用，

随机森林是一种先进的机器学习技术。模型训练一组决策树，并通过对训练数据集的不同自助抽样训练的每个决策树森林的输出进行平均值计算来进行分类预测，并专注于不同的随机特征子集以打破模型相关性。行业和学术界都有研究证明，随机森林模型可以有效降低模型的方差而不增加偏差。

深度神经网络最近在计算机视觉、语音识别和游戏等各种任务中取得巨大的成功，在金融领域也是一种潜在的强大预测工具。由于深度神经网络在训练环境存在高噪声时容易陷入不良局部最优解，因此在金融市场中使用深度神经网络时必须配合采用其他有效机制来避免过拟合。

模型还应用遗传算法（GA）在具有指数级基数的搜索空间中进行全局最优子集搜索。遗传算法是受达尔文的自然选择论启发的算法，其中一群个体代表了优化问题的候选解集合，通过迭代逐步演化，朝着更优的结果发展。每个个体参数集被赋予一个染色体，可以进行突变或交叉。应用遗传算法有助于使模型超越随机选择。

基本面对标蚂蚁金服

从基本面看，人工智能模型建议将马可数字科技对标蚂蚁金服。虽然蚂蚁金服目前未上市，但模型从其他公开披露资料中发掘历史数据和估值，并进行分析。通过运用自行研发的类ChatGPT的生成式AI模型，深入了解人工智能模型的推断。下表列出了模型使用的一些特征。马可数字科技和蚂蚁金服在这些特征上具有高度相似性。

特征编号	模型特征	马可数字科技	蚂蚁金服
1	高成长行业	数字人民币（E-CNY）是中国的战略重要发展领域。	移动支付和小额信贷大大提高了整个经济系统的运行效率。
2	颠覆性行业	数字人民币将资金转账成本降低到几乎零。它正在取代当前的支付方式，包括移动支付。	与银行转账相比，移动支付显著降低了转账费用率。移动支付已经大量取代了银行转账。
3	十亿级用户体量	数字人民币将拥有十亿数量级用户。	移动支付拥有超过十亿用户。
4	与国企合作	公司与国企（包括铁通、电建、中铁、中建）共同竞标智慧城市项目。公司与媒体行业国企共同申请数字人民币全牌照。	蚂蚁金服与国企合资设立个人信用数据评估公司。
5	管理层具有丰富经验	陈永忠先生在创立公司保险科技板块前任安邦人寿以及安邦财险总裁。	井贤栋先生在加入公司之前任百事中国财务总监。
6	保险科技	保险科技是公司的重要板块，是未来重要增长点。	保险科技是公司重要板块。公司还是港股上市财险公司众安在线的投资者。
7	区块链技术	公司开发的数字人民币解决方案大量采用了区块链技术。公司拥有 16 项数字人民币技术专利以及 3 项软件著作权；14 项区块链技术和隐私计算专利以及 3 项软件著作权。	蚂蚁金服拥有 2344 项区块链相关专利以及 10 项数字货币相关专利。
8	国开行	国开行（通过子公司 National Development Investment Limited）是公司战略股东。	国开行早在 A 轮融资就成为蚂蚁金服投资者。
9	人保集团	人保集团是公司客户。公司为人保集团开发数字人民币支付支付入口。	人保集团是蚂蚁金服投资者。蚂蚁金服旗下支付宝是人保集团保费支付工具之一。

来源: EquityAlpha, Deepmind Capital

估值对标阿里巴巴和腾讯控股

在估值方面，模型将马可数字科技对标并购活动出现井喷的高科技公司。模型将年化并购支出与前三年平均并购支出进行比较，根据结果将马可数字科技、阿里巴巴、腾讯控股等许多其他科技公司聚类到同一类别中以计算股票回报率。下表列出了生成式人工智能模型的输出。

模型特征	马可数字科技	阿里巴巴	腾讯控股
并购活动出现井喷现象: 当年并购活动支出除以前三年并购活动支出平均值	2022 以及 2023 财年达 20.8 倍	2014 财年达 21.5 倍	2011 年达 10.6 倍
并购活动井喷后长期股票回报率*	预计范围在 730% 和 970% 之间	到 2018 年达 540%，到 2020 年达 850%	到 2018 年达 840%，到 2021 年达 1400%

注: * 长期股票回报率被定义为从并购井喷年度财年截止日期到股价峰值的回报率。

来源: EquityAlpha, Deepmind Capital

人工智能模型将马可数字科技与阿里巴巴和腾讯控股聚类的主要原因是该公司在 2022 财年和 2023 财年的并购支出预计将是过去三年平均水平的 20.8 倍。这种并购活动的井喷信号曾经在阿里巴巴的 2014 财年年报（比率达 21.5 倍）以及腾讯控股的 2011 财年年报（比率达 10.6 倍）出现过。

参考阿里巴巴（540%至 850%）、腾讯控股（840%至 1400%）以及该类别中其他具有类似特征的许多科技公司的长期股票回报率，模型预测马可数字科技在并购活动井喷之后的股票回报率将在 730% 至 970% 之间。以最新年度报告发布时的 29 港元股价为基准，马可数字科技的估值目标为每股 240 港元至 310 港元。取平均值，将目标价设为每股 275 港元，并给予强力买入评级。

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