刘艺超

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教育背景

上海交通大学　（现已保研至复旦大学国际金融学院）　**中国，上海**

金融学专业，经济学学士　*2021.09-2025.06*

辅修专业：商务数据科学　*2021.09-2025.06*

- GPA: 3.85/4.3，B 类奖学金（20%）
- 主修课程：机器学习（95）、回归分析（90）、建模与优化（94）、随机过程及应用（91）、Python（90）、计量经济学（93）、中级宏观经济学（99）、公司金融学（95）、金融工程学（92）、增强学习（在修）、高阶概率统计方法（博士课）等
- 奖项：“正大杯”第十三届全国大学生市场调查与分析大赛（三等奖）；第六届“石锋资产杯”模拟行业研究投资比赛（收益排名 4/25）；Worldquant IQC 量化挑战赛（学校第二名，金牌），中国国际大学生创新大赛 2024（市赛金奖）

实习经历

天宝私募基金管理有限公司　**中国，上海**

实习生，量化投资部　*2024.01-2024.08*

- 运用 Python 构建量价和基本面因子，通过阅读券商研报与文献进行因子复现，目前已构建 100+因子，进一步完善公司因子库，比如采用了市值与行业中性化办法改进了传统价值因子，IC 比率提升 5%
- 运用 Python 构建算子便于批量因子挖掘，如构建一元线性回归残差和系数表达式，显著提高因子计算效率
- 运用米筐量化平台接口，实现本地因子回测，并结合回测结果对因子进一步筛选、改进与复合，最后对投资组合进行优化，实现对如中证 500 指数的跟踪和增强
- 运用 Python 搭建风险模型，实现本地化风险因子的计算，因子与股票协方差矩阵的估计，风险模型评价指标的构建，结合 copt, gurobi 等求解器完成资产组合优化

山西证券股份有限公司　**中国，上海**

实习生，研究部　*2023.06-2023.09*

- 运用 Python 高效完成可转债的量化策略研究，运用 backtrader 自行搭建回测平台，复现研报，构建如指数增强等量化投资策略，为公司的投资研究提供量化层面支持
- 运用 Python 搭建数据库，结合开源数据库数据接口完成金融衍生品的行情数据、基本面数据等的每日更新，为策略研究提供数据支持
- 完成如天汽模、东方股份、长久物流等上司公司调研，结合其路演形成涵盖公司的竞争优势、业绩表现、业务发展等方面内容共计 3 万余字的分析报告，为公司选择合作伙伴提供参考及建议

项目及比赛经历

运用 CNN 构建机器学习模型识别真人\AI 图片　**中国，上海**

核心成员　*2023.03-2023.06*

- 项目旨在构建机器学习模型，以预测图片为真人绘制还是 AI 绘制
- 与团队成员快速学习并合作完成爬虫代码，在网上爬取 10000+真人和 AI 绘制图片，运用 CNN 、GAN 等适合图处理的机器学习算法在 Kaggle 上训练模型，预测图片是否为真人绘制，最终样本外准确率超 70%

对结直肠癌患者患病概率的预测　**中国，上海**

个人项目　*2023.04-2023.06*

- 运用给定的关于病人各项指标的数据集，结合回归分析的知识，如 WLS、 GAM，对现有数据训练回归模型，预测病人是否患有结直肠癌，最终在 Kaggle 给定的测试集预测准确率达到 0.85 以上

美国大学生数学建模比赛（MCM/ICM）　**中国，上海**

核心成员　*2023.02-2023.04*

- 学习数学建模的知识，如熵权法、排队论、博弈论等，掌握使用 latex 进行学术论文创作
- 比赛中使用 EWM、PCA 等方法构建模型分析，最终完成 25 页英文学术论文

UFA 全球大学生金融大赛　**中国，上海**

核心成员　*2022.06-2022.10*

- 作为团队核心成员，运用机器学习算法，如更不易过拟合的 Randomforest 与更具鲁棒性的 SVM 模型复现并改进研报中的量化策略，在官方平台上运用指定 api 接口进行策略回测和调参，并撰写策略报告
- 项目最终获得全国 20/2000 名的成绩

其他信息

学生活动：学院宣传部干事，为学院各项活动入摄影大赛等进行文案撰写、拍摄视频、统筹规划及宣传

计算机： 熟练使用 Python、MySQL、 latex、Microsoft 办公套件、秀米设计排版及爬虫工具爬取信息

英语：四级 631 分，六级 610 分，GRE327 分（157+170），托福 104 分

兴趣：长跑，乒乓球、钢琴

Yichao Liu

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EDUCATION

Shanghai JiaoTong University (now been recommended direct admission to FISF) **Shanghai, China**
Bachelor of Economics, Major in Finance *Sept. 2021-Jun. 2025*
Minor major: Business Data Science *Sept. 2021-Jun. 2025*

- Major GPA: 3.85/4.3; B class scholarship (Top 20%)
- Courses: Machine Learning(95), Regression Analysis(90), Modeling and Optimization(94), Stochastic process(91), Python(90), Econometrics(93), Macroeconomics(99), Corporate Finance(95), financial engineering(92), Reinforcement Learning (ongoing), Advanced Probability and Statistics Methods (doctoral course), etc.
- Prizes: 3rd Prize in the 13th "Zhengda Cup" National College Student Market Research and Analysis Competition; 4/25 Ranking in the 6th "Shifeng Asset Cup" Simulation Industry Research and Investment Competition, Worldquant IQC Quantitative Challenge (Second Prize School Level, Gold medal), China International College Students' Innovation Competition 2024 (Gold Award Province Level)

PROFESSIONAL EXPERIENCE

Tianbao Private Equity Fund Management Co., Ltd **Shanghai, China**
Quantitative Investment Department Intern *Jan. 2024-Aug.2024*

- Used Python to construct technical and fundamental factors and read research reports, factor calendars, and other articles for factor reproduction; constructed 100+ factors, improving the company's factor library, such as using the market value and industry neutrality approach that improved traditional value factor and increased IC ration by 5%
- Constructed operators with Python for batch factor mining, like building single linear regression residual and coefficient expressions, which significantly improved the efficiency of factor calculation
- Utilized the API interface of the Ricequant quantitative platform to achieve local factor backtesting, further screened, improved, and compounded factors based on the backtesting results, and ultimately optimized the investment portfolio to implement tracking and enhancement of indices such as the CSI 500 Index
- Used Python to build risk models, calculated localized risk factors, estimated factors and stock covariance matrices, constructed risk model evaluation metrics, and the optimization of asset portfolios combined with solvers like copt, gurobi

Shanxi Securities Co., Ltd **Shanghai, China**
Research Department Intern *Jun. 2023-Sept.2023*

- Executed quantitative strategy research on convertible bonds using Python, applied Backtrader to build a backtesting platform, reproduced research reports and constructed strategies such as index enhancement to quantitatively support the company's investment
- Built a database with Python, daily updated the market data and fundamental data of financial derivatives via open-source database data interfaces, to provided data support for the department's strategic research
- Investigated multiple listed companies and produced 30k+ words of corporate reports based on their roadshows, covering competitive advantages, performances, business development, etc. to offer reference for partner selection

PROJECT & COMPETITION EXPERIENCE

Using CNN to Construct a Machine Learning Model for Recognizing Real People/AI Images **Shanghai, China**
Core Member *Mar. 2023-Jun. 2023*

- Aimed to build a machine learning model to predict whether images are drawn by humans or AI
- Worked with team members to write web crawler code and crawl 10000+ real person and AI drawn images online, used CNN, GAN and other machine learning algorithms to train models on Kaggle, and predicted whether the images are drawn by real people, which ultimately achieved an accuracy rate of over 70%

Prediction on the Probability of Patients with Rectal Cancer **Shanghai ,China**
Personal Project *Apr. 2023-Jun. 2023*

- Applied regression analysis knowledge such as WLS and GAM to train regression models on provided data of various indicators of patients and predict whether patients have colorectal cancer
- Achieved above 0.85 of the final prediction accuracy on the given test set on Kaggle

Mathematical Contest In Modeling (MCM/ICM) **Shanghai ,China**
Core Member *Feb. 2023-Apr. 2023*

- Learned mathematical modeling knowledge such as entropy weight method, queuing theory, game theory, etc., and mastered the use of Latex for academic paper creation
- Constructed models including EWM, PCA and other methods for analysis, and completed a 25-page English paper

UFA Global Undergraduate Finance Competition **Shanghai ,China**
Core Member *Jun.2022-Oct.2022*

- Used machine learning algorithms such as Randomforest, which is less easy to overfit, and SVM model, which is more robust, to reproduce and improve the quantitative strategy in the research report, applied the designated API interfaces for strategy backtesting and parameter tuning and wrote strategy report
- The project ultimately achieved a national ranking of 20/2000

OTHERS

Student Work: Member of the College Youth League Propaganda Department (Responsible for activity planning, copywriting, video shooting, and promotion of various activities, such as photography competitions)
Computer Skills: Proficient in Python, MySQL, Latex, Microsoft Office Suite, Crawler tools, and Xiumi platform
English: CET-4 631, CET-6 610, GRE 327(157+170), TOEFL 104
Interests: Running, Table Tennis, Piano