刘翰学

基本信息

性别：男

出生年月：1990-06

电话号码：13723765266

户籍：深圳

现居地：深圳

邮箱：honhoklau@163.com

求职意向

意向岗位：深度学习类

意向城市：深圳

期望薪资：面议

求职类型：社招

当前状态：随时到岗

自我评价

我是一名深度学习研究人员，致力于以严谨的态度和持续的自我提升来推动工作。我拥有高效学习能力，具备坚实的数学和金融学基础，持续追踪前沿论文，擅长跨领域研究，包括但不限于自然语言处理 **NLP**、**ASR**，时间序列 **TimeSeries**，计算机视觉 **CV**，多模态学习 **CLIP** 等。我能胜任全英文工作环境的语言能力，能接受全英文面试，可用流利英文作讲解和撰写报告。

我曾独立承担交易系统的设计与开发工作，利用深度学习前沿模型为策略提供交易信号。在资本市场的交易实践中，我积累了近十年的经验，对交易策

教育经历

2015.9-2017.6 **深圳大学**

金融硕士 ｜ 硕士

- 核心课程：泛函分析、数学物理方法、期权定价、资产组合理论与风险管理、随机微积分、数值方法、固定收益工具、金融时间序列分析、凸优化等。
- 学术成就：获硕士生学业奖学金，GPA 87/100，专业排名 2/33。

2009.9-2013.6 **深圳大学**

土木工程 ｜ 本科

- 学术成就：曾获得学业一等奖学金，GPA 3.88/4.2，专业排名前 3%。

项目经历

2025.1-2025.6 **基于前沿深度学习的时间序列建模**

深度学习算法研究员

- 构建并优化深度学习框架，实现金融市场高频 Tick 级时间序列建模，利用类 Transformer 模型（如 Informer 与 TimesNet）进行预测分析与特征提取，为量化策略提供交易信号。
- 深入模型研究与创新：保持每周系统性阅读前沿不同领域的 ML/DL 文献，快速理解模型原理并进行复现实验，结合扎实的数学理论（统计学方法、时间序列分析、随机过程、优化理论）、工科和金融学背景，对现有模型提出针对性改进思路（如融合不同频率信息、轻量化设计、引入混合注意力机制等），并独立编程实现与验证。
- 熟悉 PyTorch 框架，熟悉 SVM、CNN、RNN、LSTM、GAN、ResNet、Whisper、VAE、CLIP、Llama、GPT、SwinTransformer 等不同领域的经典模型，熟悉 Prompt 工程，LangChain、RAG、Agent 等 LLM 相关方法，熟悉 Docker、Dify、Ollama、ONNX 等工具，知识结构丰富多样，因此易于将不同领域的研究思想进行跨领域运用。具备独立完成从数据准备、模型训练、模型部署等全流程项目能力。
- 能对不限于下方所列模型进行复现和微调：Informer 、Times-Net、ViT、YOLOv5、BERT(FineTuning)等，限于简历篇幅，此处不赘述。

2024.5-2024.12 **基于 CTP 的交易系统开发**

独立开发者

- 使用 MFC 和 Qt 框架，基于 CTP SDK(C++)开发交易系统，集成行情显示、数据采集清洗、下单交易、回测等功能。
- 在无计算机科学背景的情况下，半年内自学 C 语言、数据结构与算法、数据库、操作系统、计算机网络、模式设计、Windows 编程、C++程序设计等，并熟练使用 Visual Studio, Qt Creator 等 IDE。

略的构建和因子分析有一定的认识和理解。

在团队合作方面，我始终认为集体智慧胜过个人努力，我乐于与团队成员协作，共同推动项目向前发展。我以开放的心态倾听他人意见，以期达到最佳的工作效果。我自认为是一个反应敏捷、勤奋且愿意为实现目标付出努力的人。

- 此外，我还拓展了我的技术栈，包括在 Linux 环境下的软件开发以及多线程编程，以提高系统的效率和性能。

2018.12-2020.6 **金融期货与现货的价格关系研究**

项目组成员

- 负责沪深 300 指数期货和指数的 Tick 级数据采集、清洗和对齐，使用 Eviews 和 Matlab 进行波动率等特征研究。建立模型描述期货与指数的关系，并利用预留数据进行回测检验，验证模型的合理性。

2016.12-2017.4 **商品期货择时策略研究**

项目组长

- 采集并分析高换手率商品期货主力合约的 Tick 级数据，研究其波动率特征。
- 对不同时间频率的数据进行建模，运用贝叶斯统计理论估计随机分布参数，并给出择时策略。进行留用数据的回测检验，验证模型的实用性。

工作经历

2016.2-2019.7 **深圳大学**

教学助理 | 教学助理

- 独立负责金融衍生工具课程的全程讲授，以及线性代数课程的教学工作，共 3 个学年。
- 制定教学计划，管理考勤，并负责期末考卷的命题工作。

2014.2-2015.8 **启航教育集团**

金融数学讲师 | 金融数学讲师

- 讲授考研数学课程，含高等数学、线性代数、概率论与数理统计及金融课程。
- 讲授 CFA 课程，含投资组合管理、固定收益投资、金融衍生工具和定量分析。

相关技能

- **编程语言**：熟悉 Python 和 C 语言，C++语言，具备数据清洗、存储和时间序列分析的丰富经验。熟悉 PyTorch 深度学习框架，了解 TensorFlow。
- **软件开发**：熟悉 C++软件开发，Qt 和 MFC 开发，以及在 Linux 环境开发。
- **理论知识**：具备完备的金融学和数学专业知识结构，曾讲授线性代数和金融衍生品等本科课程。具备优良文献阅读能力和论文代码复现能力。
- **学习能力**：10 日内高分通过期货从业考试（91+75.5），2 个月内快速通过三个级别 CFA 考试，6 个月内迅速掌握 C++交易软件开发的多项关键技术。
- **跨学科背景**：系统学习过土木工程、金融、数学、计算机科学等多学科课程，具备深度学习跨领域研究能力。
- **其他技能**： AIGC 方面，会使用 StableDiffusion WebUI、Controlnet, ComfyUI、FramePack 等工具进行文生图、图生图和图生视频等创作，熟悉 Diffusion Models、VAE 和 CLIP 等相关论文的技术原理。

荣誉证书

证券从业资格、期货从业资格、基金从业资格、雅思、CET-6、CFA Level3 Passed

HanxueLiu

13723765266 | honhoklau@163.com
Male | 1990-06

Applying For

Position : DeepLearning | City : Shenzhen

Education

2015.9-2017.6 **Shenzhen University**

Finance | Master

Core Courses: Functional Analysis, Mathematical Physics, Options Pricing, Portfolio Theory and Risk Management, Stochastic Calculus, Numerical Methods, Fixed Income Instruments, Financial Time Series Analysis, Convex Optimization.

Academic Achievements: Received Master's Academic Scholarship, GPA 87/100, ranked 2nd out of 33 in the major.

2009.9-2013.6 **Shenzhen University**

Civil Engineering | Bachelor

Academic Achievements: Received First-Class Academic Scholarship, GPA 3.88/4.2, ranked top 3% in the major.

Working Experience

2016.2-2019.7 **Shenzhen University**

Teaching Assistant | Education

Independently responsible for the full teaching of financial derivatives courses and linear algebra courses for 3 academic years.

Developed teaching plans, managed attendance, and was in charge of final exam paper setting.

2014.2-2015.8 **Qihang Education Group**

Lecturer | Education

Taught postgraduate entrance examination mathematics courses, covering advanced mathematics, linear algebra, probability and statistics, and financial specialty courses.

Taught CFA courses, including portfolio management, fixed income investments, financial derivatives, and quantitative analysis.

Project Experience

2025.01-2025.06 **Deep Learning for Time Series Modeling**

DL Algorithm Researcher

Developed and optimized deep learning frameworks for high-frequency tick-level time series modeling in financial markets, leveraging Transformer-based models (e.g., Informer (AAAI 2021), TimesNet (ICLR 2023)) to conduct predictive analysis and feature extraction, generating alpha signals for quantitative strategies.

Maintained weekly systematic review of SOTA ML/DL literature across domains, rapidly comprehended methodologies, and reproduced experiments.

Proposed targeted model improvements (e.g., multi-frequency fusion, lightweight architecture design, hybrid attention mechanisms) by integrating rigorous mathematical theory (statistics, time-series analysis, stochastic processes, optimization) with financial domain expertise.

Technical Expertise:

Frameworks: Proficient in PyTorch; experienced with TensorFlow, Hugging Face.

Machine Learning: SVM, CART,

Deep Learning: CNN, RNN, LSTM, GAN, ResNet, Whisper, CLIP, Llama, GPT,

Time Series: Informer, TimesNet ,

Computer Vision: ViT, YOLOv5 , SwinTransformer,

Natural Language Processing: Transformer, BERT (fine-tuning),

LLM: Prompt, LangChain, RAG

Tools：Docker, Dify, Ollama, ONNX,

Research Capabilities:

Capable of reproducing, fine-tuning, and innovating on the above models, with demonstrated ability to propose novel research directions.

2024.5-2024.12 **CTP-Based Trading System Development**

Independent Developer

Developed a trading system using MFC and Qt frameworks based on CTP SDK (C++), integrating market display, data collection and cleaning, order trading, and backtesting functions.

Self-taught C language, data structures and algorithms, databases, operating systems, computer networks, pattern design, Windows programming, and C++ programming within half a year, and proficient in using Visual Studio, Qt Creator, etc.

Expanded technical stack to include software development in the Linux environment and multi-threaded programming to enhance system efficiency and performance.

2018.12-2020.6 **IF300 Futures and Index Relationship Research**

Project Member

Responsible for the collection, cleaning, and alignment of tick-level data for the CSI 300 index futures and index, using Eviews and Matlab for volatility and other feature studies.

Built models to describe the relationship between futures and the index, and conducted backtesting on reserved data to verify the rationality of the models.

2016.12-2017.4 **Commodity Futures Timing Strategy Research**

Project Leader

Collected and analyzed tick-level data of high turnover commodity futures main contracts, studying their volatility characteristics.

Modeled data at different time frequencies, used Bayesian statistical theory to estimate random distribution parameters, and proposed timing strategies.

Conducted backtesting on out-of-sample data to verify the practicality of the models.

Self-Introduction & Skills

I am a deep-learning researcher committed to advancing my work with rigorous dedication and continuous self-improvement. I possess efficient learning capabilities, a solid foundation in mathematics and finance, and consistently track SOTA academic papers. I excel in cross-domain research spanning natural language processing, time series analysis, and computer vision. My fluency in English enables seamless collaboration in multilingual environments and effective communication within multicultural teams.

I have independently designed and developed trading systems using cutting-edge deep-learning models to generate actionable trading signals. Through nearly a decade of hands-on experience in capital market trading, I have developed substantive expertise in constructing trading strategies and conducting factor analysis.

Regarding teamwork, I firmly believe collective wisdom surpasses individual effort. I proactively collaborate with team members to drive projects forward, actively listen to diverse perspectives with an open mindset, and strive to achieve optimal outcomes. I am recognized as a responsive, diligent professional committed to dedicating the necessary effort to achieve organizational goals.

Certifications:

College English Test Band 6, Securities Qualification, Futures Qualification, Fund Qualification, CFA Level3 Passed, IELTS