LI YU

TARGET: Senior Algorithm Engineer

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EXPERIENCE

2017.07-

Shanghai Great Wisdom Data Technology Co., Ltd.
Senior Algorithm Engineer

- Developed a share price trend forecast based on statistical language model, and applied the forecast model to the Range Break interval breakout trading system, which reduced the yield retracement and yield volatility.
- Mining quantitative factors and constructing multi-factor models to find more effective factors for machine learning models.
- Develop a stock time series quantitative model. The model uses traditional machine learning models such as LR, SVM, XGBoost, lightGBM, and Bi-LSTM deep learning models. And XGBoost and lightGBM with many parameters use Bayesian optimization method to achieve automatic tuning of hyperparameters.
- Extract relevant public opinion factors based on financial news, forum reviews, and brokerage research report semantic analysis, and predict industry fluctuation trends based on the extracted public opinion factors. At the same time, this model is integrated with trend price fluctuation models based on volume and price data.
- The construction and maintenance of a real-time text search system based on ELK is used for the real-time search recommendation of keywords, and the search response time is greatly shortened.
- Calculate underlying stock according to the text description of the main product and business of the stock, and construct a competitive KG of listed companies.

2016.01-2017.03

Shanghai Kunyan Data Services Co., Ltd.
Algorithm Engineer

- Responsible for developing the verification code identification system (Python) that provides services for the crawler system.
- Financial Industry Text Classification. Based on TextRank, Word2Vec has established a financial industry text classification system to improve the accuracy of industry classification (Scala, Python).
- Responsible for the improvement of the Hot Words System, and establish a set of heat evaluation criteria and heat calculation standards (Scala) for hot word candidates based on Bayesian average and Newton cooling algorithm.
- Develop a Text Keywords and Summary Extraction system (Scala) based on TextRank.
- Based on Spark clusters, perform related development work such as keyword extraction of financial and financial news texts, text summaries, topic clustering, and research and development of related topic event extraction models.
- Responsible for data mining, feature value extraction and modeling related to market trends and financial risks, and develop market sentiment index models.

2014.11-2015.12

Ezhen Energy (Shanghai) Technology Co., Ltd.
Algorithm Engineer

- ECT positive problem analysis, realizing 2D / 3D pipeline finite element analysis and calculation, and constructing SVM training samples.
- Use support vector machine (SVM) classification algorithm for the establishment of 2D / 3D image multi-class classification and reconstruction models and algorithm optimization.
- Responsible for the management of the project team, the management and coordination of the R & D personnel in the design of the hardware circuit of the project, and the control of the development progress.

Special Skills

Develop Skills
- Strong coding ability in Python, Scala, Matlab, and familiar with C++.
- Understand Classification、Regression and Clustering problems, Familiar with SVM, XGBoost and other machine learning algorithms.
- Understand the basic methods of deep learning, familiar with deep learning frameworks such as Tensorflow and Pytorch.
- Understand knowledge graph related theories (entity recognition, semantic search, etc.), familiar with natural language processing related methods.
- Learn about distributed big data frameworks such as Spark, Hadoop, kafka, and ElasticSearch.
- Familiar with Linux principles and Docker technology, and understand Docker related technology.
- Familiar with database operations, familiar with mainstream no sql databases such as HBase and redis.

Language Proficiency:
- Excellent reading and writing ability, good listening and speaking ability.

EDUCATION

2013.09-2016.06	**Shanghai Ocean University** **Software engineering (Master)**
2019.09-2013.06	**HuaiYin Institute of Technology** **Information and Computing Science (Bachelor)**

Awards and Certificates

Awards:
- Second prize of The 12th "Zhong Guan Cun Youth League Cup" National Graduate Mathematical Modeling Contest.
- Third prize of The 11th "Huawei Cup" National Graduate Mathematical Modeling Competition.
- Third Prize of East China Division of the First National University Internet of Things Application Innovation Contest.
- Third Prize of Huai'an Entrepreneurship Plan Competition, National Inspirational Scholarship, Second Prize Scholarship, Outstanding Student Cadre, Outstanding Party Member.

Certificate: CET6, NCRE II (C++).

PUBLICATION

- "Unmixing: A New Direction From Classical Tidal Harmonic Analysis" [J], 2015 International Academic Conference, MTS / IEEE OCEANS'15, Washington, DC, first author, thesis retrieved by EI, 2015 (9).
- The non-negative matrix factorization (NMF) algorithm is applied to the unsupervised blind separation of tidal tide, which solves the problems of difficult data collection and complicated calculation encountered in traditional separation.
- " blind signal separation algorithm based on NMF with Projection Gradient" [J], first author, computer engineering, 2016 (02).
- "Relationship between mouse brain wave and respiration based on wavelet support vector machine" [J] .Chinese Journal of Medical Physics. 2015 (03).
- "Weight Analysis of Influencing Factors of Green Tide Disasters Based on Support Vector Machines" [J]. China Environmental Science. 2015 (11).