SHAOYANG NI

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A self-motivated graduate student with strong background and rich experience in data science and quant finance seeks an opportunity for Data Scientist Intern role in Bomdora.

EDUCATION

Rutgers University, New Brunswick, NJ, USA (Dual Master)

Master of Science, Mathematical Finance *2017 – 2019*

Master of Science and Business, Analytics, concentration Data Science *2016 – 2018*

University of California, San Diego, CA, USA

Bachelor of Science, Chemical Engineering; Minor in Business *2011 –-2015*

PROFESSIONAL EXPERIENCE

Rutgers University, New Brunswick **Piscataway, NJ**

Teaching Assistant *(Course Name: Applied AI)* *2017 – 2018*

- Assisted students on Python, Tensorflow, and convolution neural network(CNN).
- Prepared course materials in deep learning by researching 20+ online courses/papers.
- Led student teams as group lead and provided technical and business advising on their projects.

China Construction Bank - Shenzhen Branch **Shenzhen, China**

Risk Analyst Intern *2016*

- Simulated and calculated value at risk (VaR) for consumer loan portfolios using the CreditMetrics model.
- Prepared credit investigation reports on customers' credit ratings and default risk to determine loan approvals.

Asklytics, Inc - IT Infrastructure Optimization Startup **Sunnyvale, CA**

Data Scientist Intern *2016*

- Developed programming algorithm to perform data merging, missing data filling and modeling.
- Performed linear regression analysis and data visualization on 86000+ rows of data using MATLAB.
- Designed testing programs to examine feasibility and efficiency (big O) of algorithm.

EverySense, Inc - Information Harvesting Startup **San Jose, CA**

Business Analyst Intern *2016*

- Promoted EverySense IoT services and product on crowdfunding platform for $30,000.
- Actively collaborated with and directed R&D team to develop API products and data pipeline.
- Had weekly meeting with CEO and Manager about business and promotion strategy in US market.

UCSD - Galperin Research Group - Quantum Research **La Jolla, CA**

Quantitative Assistant *2014-2015*

- Read in 2400000+ points of data and computed density function using C++.
- Visualized electron flow on molecule in 3D vector field using MATLAB.
- Simulated molecule electron orbital and conducted coordinate of a molecule using Gaussian 09 software.

RESEARCH PROJECTS

Bloomberg Trading Challenge *2018*

- Built and evaluated stock portfolio based on risk metric (such as Sharpe Ratio and smart Beta) using terminal.
- Analyzed selected companies' financial statement and applied financial metric to evaluate companies.
- Used the Bloomberg Terminal to develop investment strategy and execute trades. Resulted with a 2.6 Sharpe ratio.

Combination SVM and PCA on non-linear Separable Data *(Python, scikit-learn, numpy)* *2018*

- Used python matplotlib and 3d graph to visualize the Iris dataset cluster and observe data distribution.
- Applied Support Vector Machine (SVM by scikit learn) to classify the object species and visualized the model
- Improved the average accuracy of the model to 96% using Principal Component Analysis (PCA by scikit-learn)

Exploratory Research and Prediction on Home Value in US Market *(Python, scikit-learn, pandas)* 2018

- Performed data cleaning (erasing missing value) and filtering (group and sort) on time series data using python,pandas
- Applied random forest regression (by scikit learn) to predict home value achieving approximately 99%. accuracy
- Perform data visualization to determine autocorrelation and compare true and predicted value.

Stock Prediction using Neural Network *(Python, tensorflow,numpy)* *2017*

- Utilized Neural Network and python programming (tensorflow) to predict next-day stock price reaching 80% accuracy.
- Calculated information coefficient & ratio and tracking error to estimate portfolio. Resulted with a 0.28 Tracking error.
- Constructed a 60 days' portfolio of 16 S&P 500 stocks using predicted stock price and Quadratic Programming.

TECHNICAL AND OTHER SKILLS

Computing and Programming: Python (Numpy, Pandas, Tensorflow, Scikit-learn), C++, MATLAB, R, SQL, VBA

Software: PyCharm, R Studio, MATLAB, VS Code, AWS, Bloomberg API, Microsoft Word, Excel(VLookup) & Powerpoint

Interests: Climbing (had experience climbing up a 2500 feet tall peak twice in day), tasting different coffee, stock trading Study online courses (had 6 online course completion certifications)