SHUMIN AN

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EDUCATION

Beijing Jiaotong University, Beijing *Sept. 2016 - June. 2020*
BSc in Computer Science Overall GPA: 3.62
Core Courses: Data Structure, Algorithm, Discrete Math, Probability Theory and Mathematical Statistics, Linear Algebra, Machine Learning, Operating System

PROJECTS

Analysis of Early-Exit Neural Network *Mar. 2019 - June. 2019*
Supervised by Prof. Hongzhi Zhao

- Analyzed the feasibility and performance of Early-Exit CNN for reducing the computational cost during image classification inference. Computed the FLOPs cost of VGG16, ResNet50 and MobileNet theoretically.
- Setted network exit based on the percentage of FLOPs cost, which helps reduce the inference cost and preserve the accuracy compared with BranchyNet.

Flow Prediction for Bike Sharing System *Oct. 2018 - Feb. 2019*
Supervised by Prof. Shuang Ren

- Identified the bicycle imbalanced problem and used clustering algorithm to cluster the stations into groups.
- Established the inter-group bike flow prediction model based on random forest algorithm. Visualized bike sharing station groups and bike flow for analyzing the changes of numbers of bikes in each cluster.

WORK EXPERIENCE

YearOne Investment, Beijing *July. 2019 - Present*
Quant Research Intern

- Developed Adaboost model based on macroeconomic factor, market sentiment and other financial factors, selected the portfolio from stock market which has relative high premium rate, updated the model when new input data generated.
- Implemented tools for calculating implied-volatility for callput options based on Black-Scholes Model, used interpolation method for analyzing and showing the severity of volatility deviation and practiced arbitrage.
- Used Monte Carlo method to simulate the performance of underlying contracts. Calculated confidence level and tail risk based on the simulation, provided evaluation of trading strategy.

Huaxia General Processor Technologies, Beijing *July. 2018 - Sept. 2018*
Software Engineer Intern

- Developed tools for showing training process of yolov3 and the memory cost, FLOPs, training time of each layer.
- Involved in analyzing the performance of pruning and quantization of deep learning model. Compared the difference of accuracy, inferencing time and memory cost between the optimized model and original one.

AWARDS

- The Scholarship of Beijing Jiaotong University *2016-2020*