SHUMIN AN

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https://coconut00.github.io

EDUCATION

Beijing Jiaotong University, Beijing   *Sept. 2016 - June. 2020*
BSc in Computer Science   Overall GPA: 3.62
Core Courses: Machine Learning, Probability Theory and Mathematical Statistics, Linear Algebra, Data Structure, Algorithm, Discrete Math, 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. Developed tools for showing the memory cost, FLOPs and training time of each layer.

- Proposed method of placing network exits based on the percentage of FLOPs cost, which helps reduce the inference cost and preserve the accuracy compared with BranchyNet.

Fruit Classification using Convolutional Neural Network   *Mar. 2018 - Jul. 2018*
Supervised by Prof. Shuang Ren

- Implemented web spider getting fruit images and built the training dataset and test dataset.

- Performed image classification on the dataset with custom implemented AlexNet neural network architecture.

User Portrait from E-commerce Website   *Oct. 2017 - Dec. 2017*
Supervised by Prof. Shuang Ren

- Implemented multi-thread web crawler for mining data on e-commerce website, including information of products and users.

- Analyzed the characteristic of website users based on k-means algorithm.

WORK EXPERIENCE

YearOne Investment, Beijing   *July. 2019 - Dec. 2020*
Quant Analyst

- Combined machine learning algorithms like linear regression and K-Nearest Neighbors with fundamental analysis for developing CTA strategies trading Index Futures and Commodity Futures.

- Developed tools computing 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 trading strategies, generated confidence level and tail risk based on the simulation, provided evaluation on feasibility of portfolio optimization.

AWARDS

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